



Sent via Federal Express

April 10, 2009

Ms. Eleanore Whitworth, Permit Coordinator Municipal Solid Waste Permits Section Waste Permits Division Texas Commission on Environmental Quality 12100 Park 35 Circle, Building F, MC-124 Austin, Texas 78753

Re: City of El Paso / McCombs Landfill – El Paso County
Municipal Solid Waste (MSW) — Permit No. 729A
Permit Modification — Landfill Gas Remediation
Second Technical Notice of Deficiency Response
Tracking No. 12593788, 12541410, 12434930; CN601410244/RN100215599

Dear Ms. Whitworth:

On behalf of the City of El Paso (City), R. W. Beck, Inc. has prepared the following documents as requested in the letter dated March 13, 2009 from the Texas Commission on Environmental Quality (TCEQ) in order to complete the processing of the subject permit modification. The following items are enclosed as requested:

- One original and one unmarked (clean) copy of the revised and added pages of Attachment 14 Landfill Gas Management Plan throughout the application process for insertion by the TCEQ. Each revised page has a footer that indicates the revision number and date in accordance with 30 TAC §330.57.
- One marked copy (in redline/strikeout format) of the revised and added pages of Attachment 14 Landfill Gas Management Plan throughout the application process.
- An original signed Applicant Certification Statement from the City of El Paso per 30 TAC §305.44.

In addition, an unmarked copy of the revised and added pages of Attachment 14 throughout the application process has also been mailed to Mr. Kent Waggoner, Waste Section Manager of TCEQ Region 6 in El Paso, Texas as requested.

Ms. Eleanore Whitworth April 10, 2009 Page 2

The following is a summary of revisions or replacement and additional pages made to the site's Part III Site Development Plan Attachment 14 – Landfill Gas Management Plan (LGMP):

- A second cover page of the LGMP has been added to provide a continuous record of modifications made to the LGMP and identify the responsible engineer for the changes.
- A revised table of contents has been added to reflect the changes in this permit modification.
- First page of Section 7 has been updated concerning the placement of gas probes and passive vents.
- A subsection entitled "Gas Monitoring Probes 18 to 22 (AMEC, 2004 2006)" under Section 8 Gas Monitoring Probe Installation has been added to describe the installation of the additional GMPs 18 to 22 in 2004 through 2006.
- A new Section 18 Gas Migration Control System has been added to describe the proposed active GMCS along the western perimeter of the McCombs Landfill.
- Appendix A-3 has been updated to provide information on coordinates and elevations of GMPs and PVs.
- A new Appendix 14F entitled "Additional Gas Monitoring Probes (GMPs 18 to 22) And Passive Vents Boring Logs and Well Reports" has been added to present the boring and well logs and state well reports of the additional GMPs 18 to 22 and passive vents PV-3 to PV-7.
- A new Appendix 14G entitled "Landfill Gas Migration Control System (GMCS) Along Western Perimeter" has been added to present the drawings of the proposed GMCS. The drawings are:
 - 1. Figure 14G-1 "Site Plan"
 - 2. Figure 14G-2 "Layout of Active GMCS"
 - 3. Figure 14G-3 "Typical GMCS Details"



Ms. Eleanore Whitworth April 10, 2009 Page 3

We appreciate your assistance in this review. Please contact me at 972-372-1205 if you have additional questions.

Sincerely,

R. W. BECK, INC.

Charles Leung, P.E.

Senior Project Manager

Enclosures:

Distribution:

Mr. Kent Waggoner, TCEQ Region 6 Office

Mr. Miguel Parra, P.E., City of El Paso

4975 Preston Park Blvd., Suite 850, Plano, Texas 75093



McCombs Landfill El Paso County, Texas TCEQ MSW Permit No. 729A

ORIGINAL

PERMIT MODIFICATION
Site Development Plan
Part III – Attachment 14
Landfill Gas Management Plan

APPLICANT'S CERTIFICATION (per 30 TAC §305.44)

I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Ellen A. Smyth, P.E.

Director of Environmental Services

City of El Paso, El Paso County, Texas

PART III SITE DEVELOPMENT PLAN ATTACHMENT 14 – Landfill Gas Management Plan

REVISED/REPLACEMENT PAGES

(CLEAN COPY)

(CONTINUED)

SITE DEVELOPMENT PLAN PART III – ATTACHMENT 14 LANDFILL GAS MANAGEMENT PLAN

McCombs Landfill El Paso County, Texas TCEQ MSW Permit No. 729A

Approved December 14, 2001
Revision 1 Approved November 13, 2003
Revision 2 April 3, 2009

Prepared for:

City of El Paso – Environmental Services 7969 San Paulo Drive El Paso, Texas 79907

Prepared by:
R. W. Beck
4975 Preston Park Blvd., Suite 850
Plano, Texas 75093

Project No. 15-00297-01000

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PERIMETER (Added April 3, 2009)

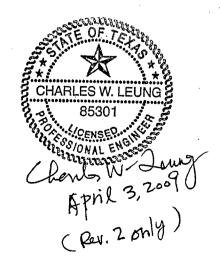


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7 BASIS OF PROBE AND VENT PLACEMENT

In June 2000, two passive venting wells (PV-1 and PV-2) were installed in order to intercept and vent methane gas prior to reaching GMP-2 and GMP-3. One (1) venting well was installed approximately fifty (50) feet east of GMP-2, with the other venting well installed approximately fifty (50) feet south and thirty (30) feet east of GMP-3. Both venting wells were installed to a depth approximately sixty (60) feet bgs in order to capture methane gas at depths where the majority of the elevated methane gas levels were detected and may be generated.

In 2001, one vertical passive venting well (PV-3) was installed to a depth of 55-feet below grade. The venting well was located approximately 10 feet south of GMP-4. Construction details for the Passive Venting Wells are included in Appendix D-1. The locations of the passive venting wells are shown in Appendix A-2.

Five (5) additional passive venting wells (PV-3 to PV-7) were installed in 2006 to provide additional gas venting in the area between GMP 2 and GMP 3. PV-3 was a replacement vent of the one installed in 2001. GMP 18 and GMP 19 were installed in 2004 to eventually replace GMP 2, and GMP 3, respectively. GMP 2 and GMP 3 will be decommissioned, plugged and abandoned after their gas readings have returned to compliance due to the installation and operation of the proposed active Gas Migration Control System (GMCS) along a portion of the western perimeter as part of the gas migration remediation plan. The current locations of GMPs 2 and 3 are too close to the waste limits, and the locations of GMPs 18 and 19 are more suitable for gas monitoring at these two locations.

Temporary GMPs 20, 21 and 22 were installed in 2006 to provide additional information on gas migration. These probes will also be decommissioned, plugged and abandoned after the gas readings of the impacted probes in the affected area have returned to compliance. The City has also decommissioned, plugged and abandoned GMPs 4, 5 and 6 based on previous TCEQ approval.

The locations of the GMPs and passive venting wells are shown in Figure 14G-1, and the approximately coordinates and elevations are shown in Appendix A-3.

The permanent Site Methane Monitoring Network consists of fourteen (14) GMPs spaced approximately 1,000 feet apart. The GMPs were installed along the permitted area and property boundary. A review of on-site geological/soil data revealed little evidence of any laterally extensive stratographic units which could significantly influence migration of any gases produced within the landfill cells (AGRA, 1994). The locations of the GMPs are shown in Appendix A-2. Except for GMP-7 (10 feet deep), the GMPs depths are 55 feet. The depth of each GMP was based on the following information:

Closed Cell Area:

According to information provided by the City, the southeastern quadrant of the landfill was used for disposal of municipal solid waste in the early 1960's. Information available suggests that little excavating was performed; waste was placed on the surface of the ground and covered (Borrego, 1994). AGRA Earth and Environmental Group estimated that the depth of waste in this area extends less than 5 feet below the surrounding land surface. The top of this cell is approximately 15 feet above grade (AGRA, 1994). The cell is covered with silty sand.

Phase II Area:

Excavations southwest of the potential area extended to a depth of 65 feet below the surface (Borrego, 2000).

8 GAS MONITORING PROBE INSTALLATION (Continued)

Gas Monitoring Probes 18 to 22 (AMEC, 2004 - 2006)

The gas monitoring probes were installed by a licensed monitor well driller (Mr. John McDuffee License No. 2994W) employing a CME 75 truck mounted drill rig equipped with 10-inch O.D. hollow stem augers. All drilling and probe operations were performed under the direction of an AMEC Texas-registered professional geologist. During the placement of the probes, the soil encountered was continuously examined, visually classified and logged. The boring and well logs of the GMPs 18 to 22 are presented in Appendix F. Locations of GMPs 18 to 22 are shown in Appendix G.

GMP 18 and GMP 19 were installed in 2004 to eventually replace GMP 2, and GMP 3A, respectively. GMP 2 and GMP 3A will be decommissioned, plugged and abandoned after their gas readings have returned to compliance due to the installation and operation of the proposed active Gas Migration Control System (GMCS) along a portion of the western perimeter as part of the gas migration remediation plan. The current locations of GMPs 2 and 3A are too close to the waste limits, and the locations of GMPs 18 and 19 are more suitable for gas monitoring at these two locations. The original GMP 3 was damaged and was replaced by GMP 3A in 2003.

Temporary GMPs 20, 21 and 22 were installed in 2006 to provide additional information on gas migration. These probes will also be decommissioned, plugged and abandoned after the gas readings of the impacted probes in the affected area have returned to compliance. The City has also decommissioned, plugged and abandoned GMPs 4, 5 and 6 based on previous TCEQ approval.

18 GAS MIGRATION CONTROL SYSTEM ALONG WESTERN PERIMETER

Existing gas monitoring probes (GMPs) 2, 3, 20, and 21 along the western perimeter of the McCombs Landfill have been experiencing periodic elevated methane readings above the regulatory limit of 5 percent (%) for some time. Certain investigations and field work had been performed by consulting firms in the past on LFG migration at the landfill, and the landfill is currently under enforcement actions by TCEQ to mitigate the affected GMPs due to elevated methane readings.

Additional passive vents (PV-3 to PV-7) were installed along the western waste limit of the Landfill in 2006 by AMEC (a local consulting firm) as part of the on-going remediation efforts. The boring and well completion logs and state well reports are provided in Appendix F. The locations of PV-3 to PV-7 are presented in Figure 14G-1. However, the passive vents were not effective in controlling gas migration toward the affected GMPs. As a result, the City decided to install an active gas migration control system (GMCS) as part of the site gas remediation plan.

The proposed GMCS is an active extraction system to control LFG migration in the affected area. The system is a partial active system because it will be installed only along a distance of approximately 1,000 to 1,500 feet over the western portion of McCombs Landfill (Phases I – III) to remediate LFG migration in the affected area. Existing passive vents PV-2 to PV-7 will be converted into active gas extraction wells as part of the GMCS. In addition to the 6 converted extraction wells, the GMCS will consist of LFG header and lateral pipes, a condensate sump and pump system, a blower/flare (b/f) station, a condensate storage tank and an air compressor system to power the condensate pump system. Future new gas extraction wells may be installed if the gas readings of the affected GMPs are not under the compliance level after 6 months of operating the GMCS with the converted passive vents. See Figures 14G-1 and 14G-2 for the approximate location and layout of the proposed GMCS. Typical details of the passive vents conversion and potential new gas extraction wells are presented in Figure 14G-3.

The Landfill site is currently under the annual air emissions threshold of the Federal New Source Performance Standards (NSPS). As a result, there is no present requirement for the City to install a LFG collection and control system (GCCS) covering the entire landfill under the NSPS rules, unless there are changes in the anticipated waste acceptance rates and/or site specific non-methane organic compounds (NMOC) concentrations in the future that may increase air emissions.

1

APPENDIX A-3

HORIZONTAL LOCATIONS AND ELEVATIONS TABLE FOR GAS MONITORING PROBES AND PASSIVE VENTING WELLS

Reference Point	North	South	Elevation
GMP-1	10675.08	10110.84	4086.41
GMP-2	11883.99	10084.55	4088.11
GMP-3A (replaced original GMP-3)	12885.06	10080.40	4096.68
GMP-4 (decommissioned)	-		
GMP-5 (decommissioned)			
GMP-6 (decommissioned)			
GMP-7	11051.54	12140.06	4072.61
GMP-8	10665.08	11084.89	4072.38
, GMP-9	10680.16	13140.49	4078.55
GMP-10	11681.36	13252.38	4084.32
GMP-11	12680.13	-13235.89	-4087.33
GMP-12	13679.19	13217.35	4082.85
GMP-13	14680.49	13199.921	4082.21
GMP-14	14964.03	12243.49	4075.69
GMP-15	14961.44	12244.89	4067.69
GMP-16 °	14953.59	10166.20	4048.13
GMP-17	13973.30	10070.10	4056.37
GMP-18**	10738875.87	413522.86	
GMP-19**	10739860.13	413550.26	
GMP-20**	10739538.43	413615.12	
GMP-21**	10739225.81	413595.36	
GMP-22**	10739398.67	413545.64	
PV-1	11870.84	10134.05	4092.70
PV-2	12803.58	10116.34	4101.28
PV-3	12835.90	10960.34	4081.81

RR Spike (Benchmark)*	10000.00	10000.00	4080.16
FND CM @ Back Bldg. (Benchmark)	10609.25	11047.33	4072.11
PV-4**	10739557.07	413732.35	
PV-5**	10739372.37	413721.45	
PV-6**	10739168.26	413775.74	
PV-7**	10739168.26	413775.74	

^{**} Approximately locations only, coordinates and elevations not surveyed.

^{*} The RR Spike Benchmark was designated as the reference point for the survey. This benchmark is located at the common corner of Section 1 and Section 12, Block 81, Township 1, and Sections 6 and 7, Block 80 Township 1, Texas and Pacific Railway Surveys.

PART III SITE DEVELOPMENT PLAN ATTACHMENT 14 – LGMP

APPENDIX 14-F

ADDITIONAL GAS MONITORING PROBES (GMPs 18 TO 22) AND PASSIVE VENTS BORING LOGS AND WELL REPORTS

(Added April 3, 2009)



June 29, 2007 AMEC Project Ref. 6717500029

City of El Paso Environmental Services Environmental Management 7969 San Paulo Dr. El Paso, Texas 79907

Attention:

Mr. John D. Garza, P.E.

Mr. Said Larbi-Cherif, P.E.

Re:

Transmittal of Completion Documents McCombs Municipal Solid Waste Landfill

El Paso, Texas

MSW Permit No. 729A WWC No. 11004302

Gentlemen:

Transmitted herewith are borings logs, well completion as-built diagrams and State well records for gas monitoring probes (GMPs), passive vents (PVs), and test monitoring points (MPs) placed at the McCombs MSW landfill during the last few phases of work. Some of these documents were previously submitted in other correspondence; however. we have provided all applicable documentation to ensure the completeness of your records.

These as-built diagrams and supporting information will be incorporated into a permit modification documenting changes to the landfill gas monitoring and abatement system at the time a formal submittal to the State is deemed appropriate.

We have omitted details concerning passive vent modification (turbines/solar vents) to minimize confusion associated with various configurations that have or may be employed.

Should you have appropriations or concerns associated with these documents, please feel free to contact ເພື່ອ at your convenience.

Respectfully

AMEC Earth &

David Varela, R Senior Engineer

Senior Geologist

ľam⊯ Bárnes Unit Manager

Addressee (3)

Permit No. 729A, Revision 1, Jan. 9, 2006

LOG OF TEST BORING NO. GMP-18



PROJECT JOB NO.	McCombs Landfill G	Bas Study DATE December		SHEET1OF_	
Depth in meters Sample Number	Graphical Log Sampla Sampla Typo Blows per foot 140 lb. 30' free-	fall drop hammer PID Reading @ Sample Tube	Unlifed Soll Classification		Hollow Stem Auger CHEK'D BY D. Varela
	Graphical Log Sample Sample Ti Blows per 140 lb. 30	fall dro PID Re @ San % LEL	Cass	REMARKS	VISUAL CLASSIFICATION
0	X A	0,0 0,0	SM		SILTY SAND, nonplastic, brown, dry.
			SM		SILTY SAND, low to moderate calcium carbonate induration, nonplastic, white
5		0.0 0.0			brown.
			SP		SAND, fine to medium grained, nonplastic, light brown, dry.
10		0.0 0.0			
			SP		SAND with some gravel, low calcium carbonate induration, nonplastic, dry.
15	X A	0.0 0.0			Gravel 1/4* to 1" sub-angular, sub-rounded.
			SP		GRAVELLY SAND; nonplastic, light
20	XA	0.0 0.0			brown, dry. Gravel 1/4* to 1* sub-angular, sub-rounded.
		· ·	SP	•	SAND with some gravel, medium to coarse grained, nonplastic, light brown,
25	A A	0.0 0.0			damp. Gravel 1/4* to 1*, 5-10% gravel, sub-angular, sub-rounded.
					THE OF TE
30	A	0.0 0.0			David Land
					David L, Hartsfield Geology 2707
35-	A	0.0 0.0			Parl L. Ff hold P.G.
					6-28-07
40					, ,
	<u>` </u>		<u> </u>		

GROUND WATER
DEPTH HOUR DATE

SAMPLE TYPE

A - Auger cuttings

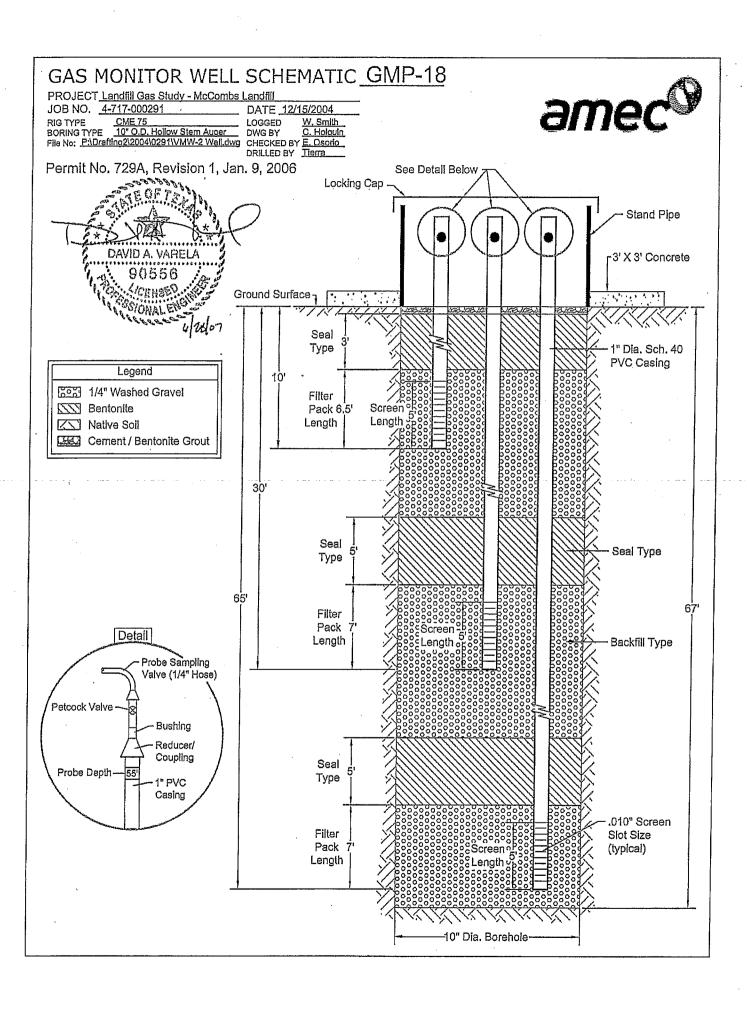
S - 2 0.0, 1.35 1.0, tube somple N - Norrocore

U - 3 0.0, 2.42 1.0, tube somple

T - 3' 0.0, thin-point Sheby tube

LOG OF TEST BORING NO. GMP-18 PROJECT McCombs Landfill Gas Study JOB NO. 4-717-000291 DATE December 15, 2004 SHEET_ OF. CME 75 10" O.D. Hollow Stem Auger DWG BY C. Holguin CHEK'D BY D. Varela DRILLED BY E. Osorio RIG TYPE BORING TYPE Blows per foot 140 lb. 30" free-fall drop hammer PID Reading @ Sample Tube Depth in meters SURFACE ELEV. DATUM Unified Soil Classification **Sample Туре** Fig No. PURE PORTOZOGO PRINCIPA DE %LEL REMARKS VISUAL CLASSIFICATION SAND with some gravel, medium to 0.0 SP coarse grained, nonplastic, light brown, damp. Gravel 1/4" to 1", 5-10% gravel, sub-angular, sub-rounded. 45 0.0 0.0 SAND, fine to coarse grained, nonplastic, light brown, damp. 50 Less than 5% gravel content. 0.0 0,0 SP 65 Α 0.0 0.0 60 0.0 10 65 0.0 8 Auger Stopped at 67'. 70 David L. Hartsfield 75

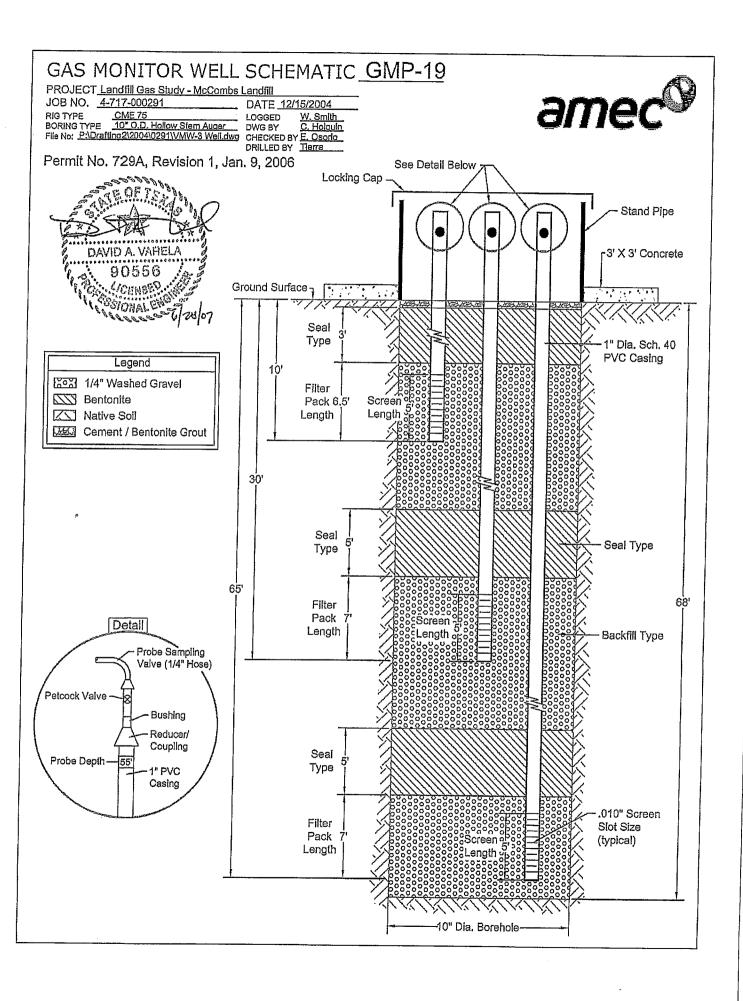
GF	<u>ROUND WATE</u>	₽	SAMPLE TYPE
DEPTH	HOUR	DATE	A - Auger cuttings B - Sect sample S - 2° O.D. 1.38° I.D. tube sample M - Macrocare U - 3° O.D. 2.42° I.D. tube sample
			U = 3" 0.0. 2.42" i.D. habe sample H = Macrocare
			T = 3° O.B. thin-world Shoby tube



Permit No. 729A, Revision 1, Jan. 9, 2006

LOG OF TEST BORING NO. GMP-19 PROJECT McCombs Landfill Gas Study 4-717-000291 JOB NO. DATE December 16, 2004 SHEET_1 OF. CME 75 10° O.D. Hollow Stem Auger RIG TYPE DWG BY C. Holouin CHEK'D BY D. Varela DRILLED BY E. Osorio BORING TYPE Blows per foot 140 lb. 30" free-fall drop hammer PID Reading @ Sample Tube Depth in meters SURFACE ELEV. Unlified Soll Classification Sample Type Existing DATUM File Not Pilot Street Control Street And August Con Graphical Log 힠 REMARKS VISUAL CLASSIFICATION % CLAYEY SAND, low plasticity, red 0.0 0.0 SC brown, damp. SILTY SAND, low calcium carbonate SM induration, nonplastic, white brown, dry. 0.0 0.0 SAND with some gravel, fine to coarse SP grained, nonplastic, light brown, dry. Gravel 1/4" to 1" sub-angular, 10 sub-rounded. 0.0 0,0 0000 A 0000 A 0000 O SANDY GRAVEL, nonplastic, light GP brown, dry. Gravel 1/4" to 1" sub-angular, sub-rounded. 0.0 0.0 SAND with some gravel, fine to coarse grained, nonplastic, light brown, dry. 20 Gravel 1/4" to 1" sub-angular, JA 0.0 0.0 sub-rounded. 25 A 0.0 0.0 David L. Hartsfield 30 0.0 35 40

LOG OF TEST BORING NO. GMP-19 PROJECT McCombs Landfill Gas Study JOB NO. 4-717-000291 DATE D DATE December 16, 2004 SHEET_ OF_ LOGGED BY W. Smith DWG BY C. Holquin CHEK'D BY D. Verela DRILLED BY E. Osorio CME 75 10* O.D. Holfow Stem Auger RIG TYPE BORING TYPE Blows per foot 140 lb, 30" free-fall drop hemmer PID Reading @ Sample Tube Depth in maters SURFACE ELEV. Unified Soll Classification Existing Sample Type DATUM Graphical Log %LEL REMARKS VISUAL CLASSIFICATION SAND, fine to coarse grained, 0.0 SP nonplastic, light brown, dry. 45 0.0 0.0 50 55 0.0 0.0 60 \times 0.0 0.0 65 J A 0.0 0.0 Auger Stopped at 68'. 70 David L. Hartsfield 75 GROUND WATER DEPTH | HOUR | 8 - Block sample M - Mocrocore

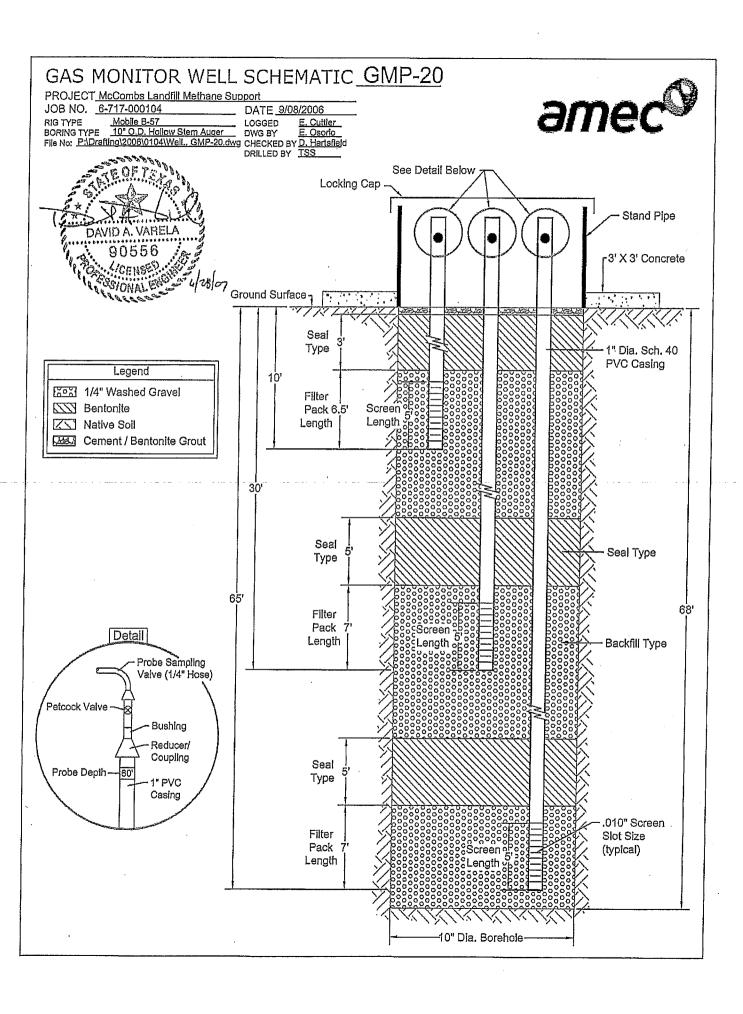


	āM		Ĺ	125 El P Tele	© Earth and Enviromental Montoya Rd. aso 79932 phone: 915.585.2472 915 585.2626	BORING NUMBER GM	
	CLIENT_	City (of El F	aso		PROJECT NAME McCombs Landfill	
	PROJEC.	าหบ	MBE	₹ 6-717-I	000104	PROJECT LOCATION 13600 McCombs, El Paso, Texas 79934	
	DATE ST	ARTI	ED_0	9/08/06	COMPLETED 09/08/06	GROUND ELEVATION HOLE SIZE 10-inch	
	DRILLING	CO	NTR/	CTOR A	MEC	ground water levels:	
	ดสเนเพด	ME'	THOC	Nollow	Stern Auger	AT TIME OF DRILLING	
	LOGGED	BY_	E. Cu	itler	CHECKED BY	at end of drilling —	
	HOTES_					AFTER DRILLING	
	O DEPTH (ff) LAB SAMPLE	TYPE/NUMBER	U.S.C.S.	GRAPHIC LOG		MATERIAL DESCRIPTION	PID (ppm)
	5	1	sM			ined, mostly medium, moderately plastic, white to brown, dry. th trace gravel, white to brown, dry.	0.0
	10	2	•	10	SAND, fine to medium grained, m	iostiy medium, trace nonplastic fines, trace pea size gravel, light brown,	0.0
T 06/27/07	15	3			SAND, same as above, dry,	David L. Hartsfield Geology	0.0
22.GPJ GINT US LAB.CDT	20	4			SANO, some as above, dry.	Jarlf. Jant (48, P.G.	0.0
ORE LOGS GMP-20 TO	25	5			SAND, cuarce le nexisira grained	, mostly medium, trace deals as graves, white to brown try	0.0
AMEC WELL LOG AND DIAGRAM BORE LOGS GMP-20 TO 22 GPJ GINT US LAB	30	6			SANO, hard to line grained, mosting	y line white to brown, dry.	0.0
MEC W	35			35.	SAND, hard to fine grained, mostly	y fine, white to brown, dry.	

AMEC Earth and Environmental 125 Montoya Rd.

LOG AND DIAGRAM BORE LOGS GMP-20 TO 22,GPJ GINT US LAB.GDT 06/27/07

BORING NUMBER GMP-20 PAGE 2 OF 2 El Paso 79932 Telephone: 915.585,2472 Fax: 915.585,2626 CLIENT City of El Paso PROJECT NAME McCombs Landfill PROJECT NUMBER 6-717-000104 PROJECT LOCATION 13600 McCombs, El Paso, Texas 79934 DEPTH (ft)
LAB SAMPLE TYPE/NUMBER GRAPHIC LOG PID (ppm) U.S.C.S. MATERIAL DESCRIPTION SAND, hard to fine grained, mostly fine, white to brown, dry. 40 8 SAND, same as above, dry. 0.0 SAND, fine to medium sand, mostly medium, trace pea size gravel, light brown to white, dry. 9 0.0 50 SAND, medium to very fine, mostly fine, light brown to white, dry. 10 0.0 55 SAND, fine to very fine, mostly fine, light brown to white, dry. 11 0.0 David L. Hartsfield SAND, same as above. 12 0.0 SAND, same as above 13 Boring Terminated at 65'. 0.0 Bottom of hole at 65.0 feet.



a	ME) 12 EI Te	MEC Earth and Environ:ental 5 Montoya Rd. Paso 79932 dephone: 915.585.2472 x: 915.585.2628	BORING NUMBER GN PAGE	
CLIE	NT <u>CIE</u>	of El	Paso		PROJECT NAME McCombs Landfill	
PRO	JECT N	JMGE	R 6-71	7-000104	PROJECT LOCATION 13600 McCombs, El Paso, Texas 79934	
DAT	e star	C_OB1	90/80/20	COMPLETED 09/08/08	GROUND ELEVATION HOLE SIZE 10-inch	
DRIL	LING C	OHTR	ACTOR	AMEC	Ground water levels:	
DRIL	LING M	CHTE	D_Hollo	w Stem Auger	At time of drilling	
LOG	ged by	E. C	uller	CHECKED BY	At end of drilling	
HOT	es				AFTER DRILLING	
о <u>ОЕ</u> РТН (ft)	LAB SAMPLE TYPE/NUMBER	U.S.C.S.	GRAPHIC LOG		MATERIAL DESCRIPTION	PID (ppm)
5	i	SM		SILTY SAND, coarse to medium, SILTY SAND, same as above, with	h trace gravet, white to brown, dry.	0.0
15	3			SAND, fine to medium grained, mo	ostly medium, trace nonplastic fines, trace gravel, white to brown, dry.	0,0
20	4	SP		SANO same as above, while to bri	David L. Hartsfield Geology 2707	0.0
25	5			S4NO same so apoval whoe to be	100, dey. Denlf-fants-lf, P.G.	0,0
30	6			SAMO same es abovo, wivie lo bro	wa fiy.	0.0
35			25	SAND, same as above, white to bro	wn, dry.	

AMEC WELL LOG AND DIAGRAM BORE LOGS GMP-20 TO 22, GPJ GINT US LAB, GDT G672707



SP

12

13

AMEC Earth and Environmental 125 Montoya Rd.

El Paso 79932 Telephone: 915.585.2472 Fax: 915.585.2626

BORING NUMBER GMP-21

PAGE 2 OF 2

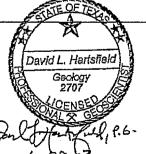
PROJECT NAME McCombs Landfill CLIENT City of El Paso PROJECT NUMBER 6-717-000104 PROJECT LOCATION 13600 McCombs, El Paso, Texas 79934 TYPE/NUMBER LAB SAMPLE GRAPHIC LOG (mdd) U.S.C.S. DEPTH (ft) MATERIAL DESCRIPTION 믮 SAND, fine to very fine, mostly fine, trave pea size gravel, white to brown, dry. 0.0 40 SAND, medium to fine grained, mostly fine, trace pea size gravel, white to brown, dry. 8 0.0 SP

SAND, same as above, white to brown, dry. 9 0.0 50 SANDY CLAY, some medium to fine sand, mostly medium, slightly plastic, medium brown, dry. 10 0.0 CL SAND, medium to fine, mostly fine, white to brown, dry. 11 0.0 LOG AND DIAGRAM BORE LOGS GMP-20 TO 22.GPJ GINT US LAB.GDT 06/27/07

SAND, fine to very fine grained, mostly fine, light brown to white, dry.

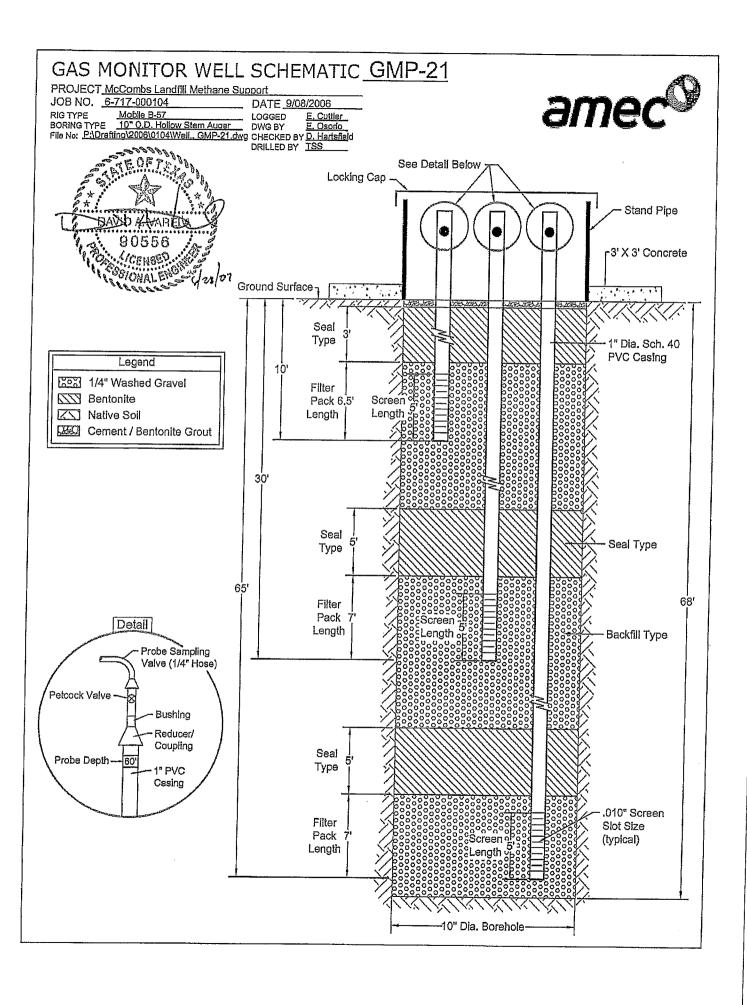
Boring Terminated at 65'.

Bottom of hole at 65.0 feet.



0.0

0.0



ar	ne	C) 12 El Te	vIEC Earth and Enviromental 5 Montoya Rd, Paso 79932 lephone: 915.585.2472 x: 915.585,2626	BORING NUMBER GMF	
CLIEN	T_City	of El i	Paso		PROJECT NAME_McCombs Landfill	
PROJE	ECT NU	MBE	R 6-71	7-000104	PROJECT LOCATION 13600 McCombs, El Paso, Texas 79934	
DATE	START	ED_0	9/09/08	COMPLETED 09/09/06	GROUND ELEVATION HOLE SIZE 10-inch	
DRILL	ING CO	NTR	ACTOR	AMEC	GROUND WATER LEVELS:	
DRILL	ING ME	THO) Hollo	w Stem Auger	AT TIME OF DRILLING	
LOGG	ED BY	E. Cu	ıtler	CHECKED BY	AT END OF DRILLING	
NOTES	s				AFTER DRILLING	
O DEPTH (ff)	LAB SAMPLE · TYPE/NUMBER	U.S.C.S.	GRAPHIC LOG		MATERIAL DESCRIPTION	PID (ppm)
		SM			oslly medium, some nonplastic fines, trace gravel, brown, dry.	
5	7 1	-		5.0 SAND, medium to fine grained, m	nostly medium, trace slit, trace gravel, light brown, dry.	0.0
	- 	SP				·
- 4						
10	2	SP		GRAVELLY SAND, medium to co dry.	arse send, mostly medium, some 1/8" to 1/2" pea gravel, white to brown,	0.0
15	٦.	OF .		15.0 SAND coarse to line, mostly med	lium, trace gravel, white to brown, dry.	
20] 3			,	STATE OF TOWN	0.0
] 4			SANO, same as scove, white to be	David L. Hartsfield Geokgy 2707	0.0
25	5	SP		SAND, medlum to fine grained, mo	Dorlf, H.A. L. P. C. 6-28-07	0.0
30	6			•	,	0.0
25	- 1	ļ	::::\.	SAND, same as above, white to br	own, dry.	Į

AMEC WELL LOG AND DIAGRAM BORE LOGS GMP-20 TO 22.GPJ GINT US LAB.GDT 08/27/07



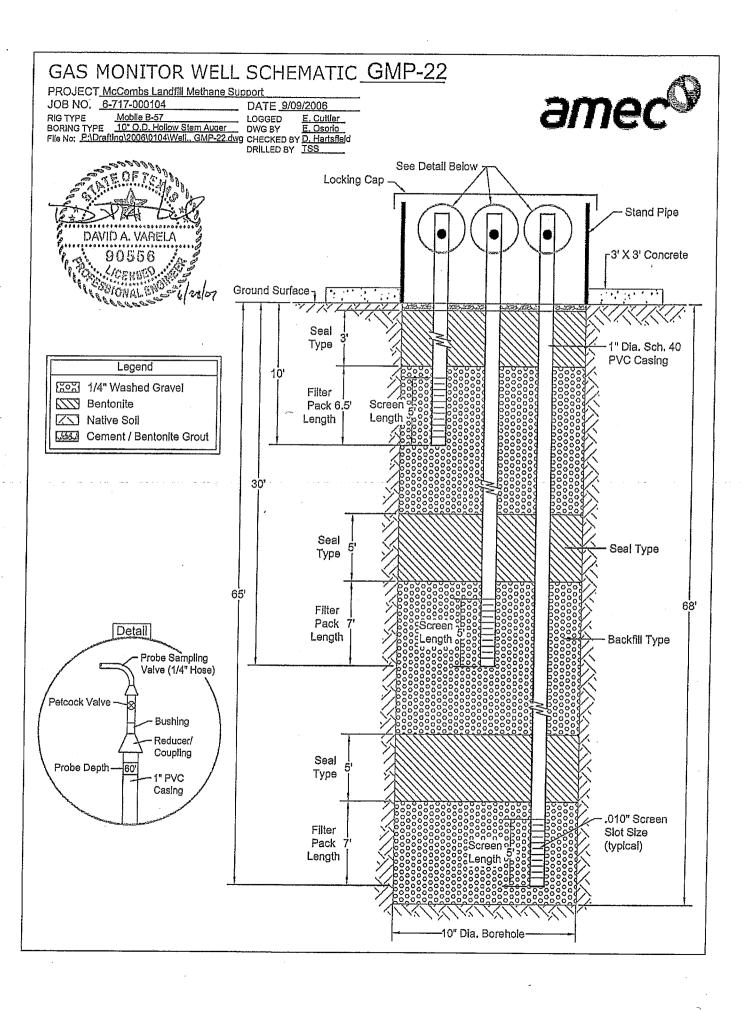
LOG AND DIAGRAM BORE LOGS GMP-20 TO 22,GPJ GINT US LAB,GDT 06/27/07

AMEC Earth and Environmental 125 Montoya Rd. El Paso 79932 Telephone: 915.585.2472

BORING NUMBER GMP-22

PAGE 2 OF 2

Fax: 915.585.2626 CLIENT City of El Paso PROJECT NAME McCombs Landfill PROJECT NUMBER 6-717-000104 PROJECT LOCATION 13600 McCombs, El Paso, Texas 79934 DEPTH (ft) (ft) LAB SAMPLE TYPE/NUMBER GRAPHIC LOG PID (ppm) U.S.C.S. MATERIAL DESCRIPTION SAND, same as above, white to brown, dry. 0.0 40 SAND, fine to very fine grained, mostly fine, white to brown, dry. 8 0.0 45 SAND, same as above, white to brown, dry. 9 0.0 SP SAND, coarse to finegrained, mostly medium, dark to light brown, damp. 10 0.0 SAND, same as above, white to brown, dry. 11 0.0 12 SAND, same as above, with trace pea size gravel, white to brown, dry. 0.0 65 Boring Terminated at 65'. 13 0.0 Bottom of hole at 65.0 feet. David L. Harişfield



Attention Owner: Confidentiality Privilege Notice on reverse side of owner's copy.

Texas Department of Licensing and Regulation

Water Well Driller/Pump Installer Section
P.O. Box 12157 Austin, Texas 78711 (512)463-7800 FAX (512)463-8616
Toll free (800)803-9202

This form must be completed and filed with the department and owner within 60 days upon completion of the well.

 $\underline{Email\ address: \underline{water.well@license.state.tx.us}\ Web\ address: \underline{www.license.state.tx.us}}$

	WELL I				
I) OWNER:	A. WELLDENTIFICATI	ONA	D LOCATION DATA		
Name: The City of	Address: 2 Civic	City		State:	IZip:
El Paso, Texas	Center Plaza	1	El Paso	Texa	1 -
2) WELL LOCATION Well # or	County:	Phus	ical Address:	City:	
#of wells drilled MP- 6C	El Paso		600 McCombs		aso/79934
3) Type of Work	Lat. 106 ⁰ 24.844	Lon	g. 31 ⁰ 59.379'	Grid# 49	-05-3
New Well Reconditioning	4) Proposed Use (check) Monitor	☐ Env	ironmental Soil Boring 🗖 Domestic	Extraction	5) N↑
☐ Replacement ☐ Deepening	☐ Industrial ☐ Irrigation ☐ Injection ☐ Rig Supply ☐ Stock ☐ Public Supply	Closed	I-Loop Geothermal U De-watering (Testwell No.	
6) Drilling Date	Diameter of Hole	-11100	7) Drilling Method (check)	163 (4110)	ø
Started 05 / 23 / 07	Dia.(in) From (ft) To (ft	t)	Driven Air Rotary	Mud Rotary	
•	Surface 5.0	^	Bored Air Hammer	Cable Tool	
Completed 05 / 24 / 07	7 0 60	U	Jetted 🖾 Hollow Stem Auge	r	
			Reverse Circulation Other		
From (ft) To (ft) Descri	ption and color of formation mater	rial	8) Borehole Completion	Open Hole	Straight Wall
	d. brown, dry.		☐ Under-reamed ☐ Grave	l Packed XI	Other SIO2
	d-fill trash.		Otaxex packed interval from:	22 ft. to:	60 ft. Size:10/20
			Casing, Blank Pipe,	· · · · · · · · · · · · · · · · · · ·	
			New Steel, Plastic Dia. Or Perf., Slotted	, etc	Setting (ft) Gage Casing
	•		4 ·· · · · · · · · · · · · · · · · · ·	if commercial	From To Screen
		_	2 New PVC Ca		+3 24 Blk. 24 59 0.01
			2 New PVC Sc Mfg.	reen,	24 59 0.01
			11191		
			9) Annular Seal Data: i.e. from <u>0</u> ft. to <u>18</u> f	(from <u>0</u> fi to <u>100</u> fi t #sacks & mater	#sacks & material 13 cement)
,			from <u>18</u> ft. to <u>22 f</u>	t. #sacks & mater	ial 25K/bent.
	Owner's copy, If necessary)		fromft. tof Method Used_Doured	Performed By	Tierra
13) Plugged	within 48 hours N/A N/A N/A N/A		Distance to septic field or other co	ncentrated contar	nination Uft.
From (ft) To (ft) From (ft	To (ft) # Sacks & Materia	al used	Distance to Property Line 200 Verified: JPM T	n Method V18 and-fil	suar 1 cell
			10) Surface Completion (If s		
			O Surface Slab Installed 🔣	Surface Sleeve I	nstalled
14) Type Pump			D Pitless Adapter Used 11) Water Level Well	Alternative Proce	edure Used
☐ Turbine ☐ Jet ☐ ;	Submersible 🚨 Cylinder		Static levelit. Da	ite: /	Set.
☐ OtherN/A Depth to pump bowls, cylinder, jet etc.,	ft.		Artesian Flow gpm 12) Packers: N/A		
15) Water Test N/A			Type Depth	Type	Depth .
Type fest 🛭 Pump 🔲 Bailer 🔲 Jetted	C Estimated	[
	down after hrs.				
16) Water Quality Type of waterN/ADep	th of Strata; Was a chemic	ical anair	vsis made? 🛛 Yes 🔀 No		
Did you knowingly penetrate a strata which	contains undesirable constituents? XXYes C	🗆 No If	yes, Continue:		
	nality groundwater – type	Hyd Oth	rocarbons (i.e. gas, oil, etc.) er (describe)		
I certify that while drilling, a	leepening, or otherwise altering the above	e descr	ibed well, undesirable water or co	onstituents was	encountered
<i>and the landowner was infor</i> By signing this well renort. T certify that	med that such well must be completed or I drilled or supervised the drilling of this we	plugge ell and t	d in such a manner as to avoid in	jury or pollutio	n.
ompany & Individual's Name: (typ	pe or print) Tierra Drilli John P. McDuf	ng 8	Env. Svc. Inc.	Lic. No.:	2994A
ddress: 5309 Mace St.	!_	City:	El Paso St	ate: Tx.	Zip 79932
guature: John p. McDay	Lee 06/06/07.	Signat			
	CHARLESCE HELDING DATE AND	44.44.54.0	with the collappenfice is acquisite land	unji elemen s -Ap	prentica Rec. Number
CIVIT OOL II II D / 2-00	LULIK (UNGINAI) LE	unaowni	er (copy) Driller/Pump	Installer (copy)	- 1

Attention Owner: Confidentiality Privilege Notice on reverse side of owner's copy.

Texas Department of License and Regulation

Water Well Driller/Pump Installer Program

P.O. Box 12157 Austin, Texas 78711 (512)463-7880 FAX (512)463-8616

Toll free (800)803-9202

Email address: water.well@license.state.tx.us

This form must be completed and filed with the department and owner within 60 days upon completion of the well.

	WE:	LL RE	PORT						
Name City of	Address	.]	City			State		Zip	
El Paso, Texas	2 Civic Center P1	aza	E1 I	Paso		Texas	3	799	10.1
								, , , ,	UI
County E1 Paso	Physical Address	(City			State		Zip	·
	See page 1	 -				ļ			
3) Type of Work Pg. 20f2 New Well Reconditioning	Lat.	Lo	ng.			Grid# 4	9-05	5-03	_
Replacement Deepening	4) Proposed Use (check)	Monitor	Enviro	nmental So	il Boring	Domestic	5)		N
VMW-18	Industrial Irrigation I	njection (Public .	Supply 🗀	De-watering	Testwell	e		
6) Drilling Date	Rig Supply If Pu Diameter of Hole	ione Suppi	y well, were	plans subm	uitted? L Y	es U No			
Started 12/ 15 / 04		To (ft)		r Botan L	Ling Soles	Driven			
	11 0	67		r Hammer	Cable To	ol Detrad			٠.
Completed 12 / 15 / 04			_ n	her	_ 040,010	01 -4 701100			
			1			[
From (ft) To (ft) Descript	formation material formation material	terial	8) Bo	rehole Co	mpletion	Open Ho	le 🗆 S	Straigh	t Wall
*#8 Borehole Com	pletion & Cement 1	Data	1 4 6	Inder-rear	ned 🛘 Grav	el Parked 🕅	Other	See:	#8&9
0-5 ft. Bentonite	chips		. Cas	H-m	elye ine interve	l from Well Screen	Data	i a Wilana	<u>ft.</u> canolid
5-18ft. Gravel, .2			1	New	Steel, Plasti			ng (ft)	
18-23ft. Bentonite			Dia. (in.)	Or Used	Perf., Slotte Screen Mfg.	d, etc , if commercial			Casing Screen
23-53ft. Gravel, .2			1	New		asing,	1		
53-58ft. Bentonite	chips		1	New		creen.			0.0
58-67ft. Gravel, .25	oinch		-		1				
					· · · · · · · · · · · · · · · · · · ·				<u> </u>
•			_ 9) Cen Cemer	nenting I	Data See	#8 a	nd]	page	1
(Use reverse side of Well O	wner's copy, If necessary)		Method	-	ft. to	ft. #	of sacks	s used _ s used _	
13) Plugged	within 48 hours		. Cementi	ng By					
Casing left in well: Cement/Bentonite pla From (ft) To (ft) From (ft)		s used·	Distance Method	to septic sy of verification	stem field or ot on of above dist	her concentrated	contam	ination _	ft.
	Jack.	s usea.							
			□ Specifi	rface Cor ied Surface	Slab Installed				
(4) Type Pump			□ Pitless	ied Surface Adapter Us	Sleeve Installed	I			
Turbine Jet Su	bmersible Cylinder		☐ Appro	ved Alternat	ive Procedure l	Jsed			
Depth to pump bowls, cylinder, let etc.,	ſt.		11) Wa	ter Level	N/a				
5) Water Test Sypetest D Pump D Bailer D Jetted	☐ Fetimated		Static leve Artesian f	el	_ft. below D)ate/		.	
teld:gpm withft. drawdo	vn afterhrs.				gpm. D	late/			
6) Water Quality id you knowingly penetrate a strata which c	Ontain undesirable constituents		12) Pac	kers N	I/A Typ)e	Dept	h	
TES CA NO II yes, did you submit a RE	PORT OF UNDESIRABLE WATER								
as a chemical analysis made Yes X	Depth of StrataNo	-							
					· · · · · · · · · · · · · · · · · · ·				
mpany or individual's Name (type o	orprint) Tierra Dril	ling	& Env	.Svc.	Inc. Li	c. No. 299	A 1.7		
dress 5309 Mace St. S			E1 Pa		1		1		
	/			<u> </u>	131	ate Texas	Zip	<u> 7993</u>	52
nature ! Wirn PMCOUL	el 01103105	Siena	ture			1	,	,	- 1

Permit No. 729A Revision 1, January 9, 2006

Attention Owner: Confidentiality Privilege Notice on reverse side of owner's copy.

Texas Department of License and Regulation

Water Well Driller/Pump Installer Program

P.O. Box 12157 Austin, Texas 78711 [512]463-7880 FAX (512)463-8616

Toll free (800)803-9202

Email address: water.well@license.state.tx.us

This form must be completed and filed with the department and owner within 60 days upon completion of the well.

WELL REPORT

Name at the	Address							
Name City of El Paso, Texas	1		City		-	State		Zip
DI (dSO, TEXAS	Z CIVIC Ce	nter Plaza	E1	Paso		Texa	s	79901
County	Physical Address						_ •	
El Paso		ombs St.	City	7		State		Zip
3) Type of Work Pg. 10f2	Lat. 106 2		E1 F			Texas		79934
New Well Reconditioning	Dat. 100 Z	4.524'	Long. 31	59.	506'	Grid#		5-03
Replacement Deepening	I radustrial D	(check) X Monito	r 🖵 Envir	onmental So	oil Boring LDc	mestic	5)	NT
VMW-18(3-strings)	Rig Supply	rigation Injection	Public	Supply 🖵	De-watering L	Testwell	٥	
6) Drilling Date		r of Hole	ply well, wer	e plans subn	nitted? Yes	U No		
Started 12/ 15 / 04		m (ft) To (ft)		ining (vie	thod (check)	Driven		
	11			ir Rotary 🕻	Mud Rotary	Bored		
Completed 12 / 15 /04		0 67		ir Hammer	Cable Tool	☐ Jetted		
				iner				,
From (ff) To (ft) Bestrip	torreside color of the	alas brita a sa	- 0\ D					
O-7ft. Silt/sand, w				renole Co	ompletion C	J Open Hole	e 🗆 St	raight Wall
	TUI Callena	e, light		SUPI PSCFAM	Aire the internal	C —		SeePg.2*
brown, dry.			Cas	1 to 3 lb.	Chipe ned W	ell Sereen l	Hia	
7-67ft, Sand, grave	1, brown, c	iry.	Dia.	New Or	Steel, Plastic,	etc.	Selling	(ft) Gage
			(in.)	Used	Perf., Slotted, Screen Mfg., i	etc f commercial	From	Casing To Screen
			1	New	PVC Cas			-60B1k.
,		·—— <u>· · · · · · · · · · · · · · · · · · </u>	1	New	PVC Sci			65 0.01
			1_1_	New	PVC Casi			-25B1k.
			1		PVC Scre			30 0.01
			9) Cer	menting I	Data See #	nsg 938	re tr	wo *
(Use reverse side of Well O			Ceme	nting from .	ft. to ft. to	. ft. # c	of sacks t	ticeri
		y)	Method	usea i	PAMIA NI	3000 311		
Casing left in well: Cement/Bentonite pla	VIIIIII 48 hours	N/A	Distance	to septic sy	stem field or othe	LILING Concentrated of	contamin	i
From (ft) To (ft) From (ft)	To (ft)	Sacks used	Method	of verification	on of above distan	cc Landf	111	anon <u>z o</u> n.
			10) Su	rface Cor	nnletion			
	- 		→ □ Specif	ited Surface	Slab Installed			
14) Type Pump		<u> </u>	- D Pitless	ied Surface Adapter Us	Sleeve Installed			
☐ Turbine ☐ Jet ☐ Su CPOther N/A	bmersible 🗆 Cylinder	•	☐ Appro	ved Alternai	tive Procedure Use	ed		
Depth to pump bowls, cylinder, let etc	ft.		11) We	iter Level	1 17 /3			
15) Water Test N/A Typetest D Pump D Bailer D Jetted (3		Static lev	el	ft helow Dat	e /	1	
r leid: gpm with ft. drawdov		us.	Artesian)	Flow	gpm. Dat	è/		
(6) Water Quality			12) Pac	kers N	I/A Type		Donah	
Did you knowingly penetrate a strata which co I YES INO If yes, did you submit a RE	ontain undestrable const	ituents	ļ		17.11		Depth	
t be of water	I land have Carren	BLE WATER						
Vas a chemical analysis made 🚨 Yes 🔯 :	No							
ompany or individual's Name (type o	er print)		<u></u>		1			
	Tlerra	Drilling	& Env.	Svc.I	nc. Lic.	No. 2994	W	
Idress 5309 Mace St. Su	ite Al	City	E1 Pa	so	1	Texas	ì	9932
mature (clm). MCDW/	Lee 0110	13/05 Sign	nature				,	,

Attention Owner: Confidentiality Privilege Notice on reverse side of owner's copy.

Texas Department of License and Regulation

Water Well Driller/Pump Installer Program
P.O. Box 12157 Austin, Texas 78711 (512)463-7880 FAX (512)463-8616 Toll free (800)803-9202

Email address: water well@license state t

This form must be completed and filed with the department and owner within 60 days upon completion of the well.

,		- Dillatt ad			EPORT	e.state.tx.	us 				
Name City of	Address	•	•		City	•		State		Zip	
El Paso, Texas	2 Civi	c Cente	er Pla	za	· E1 F	aso		Tex	as	4	9901
							•				3301
County	Physical Ado				City			State	و المساول	Zip	<u> </u>
E1 Paso	See p	age 1								Z.p	
3) Type of WorkPg. 20f2	Lat.	·		L	ong.			Grid#	4	9-05-	0.3
New Well Reconditioning		ed Use (che	eck) 🖾)	vlonitor	Enviro	onmental Sc	oil Boring	Domestic		5)	N
Replacement Deepening	Industria	l 🖵 Irrigati	on 🔲 Inj	ection	Public Public	Supply 🔲	De-waterin	g Testwe	.11	· 6	11
VMW-19	Rig Supp	oly	If Pub	lic Supp	oly well, were	e plans subr	nitted?	Yes 🗆 No		Ģ	
6) Drilling Date	D	iameter of	Hole					k) U Driv			
Started 12 / 16 / 04	Dia.(in)	From (ft)	Т	o (ft)	☐ Ai	ir Rotary	Mud Rota	iry 🕅 Bor	red		
	11	0		68		ir Hammer	Cable 7	ool D Jette	ed		
Completed 12 / 16 /04				<u> </u>		her			-		
								·	- L		
From (ft) To (h) Descrip	the and col	or of forms	ition mat	erial ·	· 8) Bo	rahola C	ompleties	D 0	77.1		1
* #8 Borehole Co	mnletio	n ·S. Com	1024 D	24.2	7 0 1	Inder-rea:	med D Gr	Open vel Packed	റ് ദേ	Johan Set	#.2.B.#±0
		i & Cell	ienc D	ata	If Gra	avel Packed	give the inter	val from ************************************		ft. to	t.
0-5 ft. Bentonite	<u>chips</u>				Cas	He Blan	Piperne	Well Sere	en D	ila:	创建的
5-18ft. Gravel, .					Dia.	New Or	Steel, Plan		L	Setting (ft)	
18-23ft. Bentonite				·	(in.)	Used	Perf., Slot Screen M	tea, etc fg if commerc	ial F	rom To	Casing Screen
23-53ft. Gravel, .:	25inch				1	New		Casing,		2.5-5	_
53-58ft. Bentonite					1	Mew	,	creen,		5-10	0.01
58-68ft. Gravel, .2	5inch						Mfg.				
-			· · · · · · · · · · · · · · · · · · ·		9) Cer	nenting l	Data See	#8	an	d paq	e 1
***					Cemei	nting from	ft. 1	ofi	. #of	sacks used	·
(Use reverse side of Well					Method	Used	11. (oft.	. #of	'sacks used	
13) Plugged	within 48 ho	ours	I/A		Cementi	ng By					
Casing left in well: Cement/Bentonite p From (ft) To (ft) From (ft)		(ft)	/ A. Sacks	urad	Method	s to septic sy of verificati	on of above d	other concentri	ated co	ntaminatio	nft.
			Oucks	4304						***************************************	
· ·					USpecif	Mace Cor ied Surface	nipletion Slab installed				
14) Type Pump					5 Specif	icd Surface	Sleeve Install	ed			
Turbine Diet De	Sübmersible 🚨	Cylinder			Q Appro	Adapter Us ved Alterna	sed tive Procedure	licad			
Other N/A Depth to pump bowls, cylinder, let etc.,								. 0304			
15) Water Test N/A	ft.				11) Wa	ter Leve	N/A				
Typetest D Pump D Bailer D Jetted	☐ Estimated				Artesian l	el Flow		Date /			i
field:gpm withft. drawd	own after	hrs.						7			·
oid you knowingly penetrate a strata which	contaîn un lucie	ahla annatutusa			12) Pac	kers N/	'A T) pe		Depth	-
I YES 'A NO II yes, did you submit a !	REPORT OF UN	מום ו מוספת'	WATER	•				-			
ype of water	Danil attack	la						-			
as a chemic il analysis made (1 183 🙊	No							<u> </u>			
mpany or individual's Name (type	or print) ,	The course	Dialas			-	_	ia Ma			
		lierra	<u> </u>	ıng	& Env	.Svc.	Inc.	ic. No. 2	994	1 W	
dress 5309 Mace St. St	,			City	El Pa	so		tate Texa	s	Zip 799	32
nature () when PMCDull	22 0	1103	سسے زیں	۱.							

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	Y	TUPP KI	SPORT	•					
Name City of El Pas	Address		City	•		State			
Texas	2 Civic Center	Plaza	. E1 c	Pago .		1	Ī	ip	
				450		Texa	S	79901	
County	, Physical Address		City			State			
El Paso	13600 McCombs S	t.	E1	Pago		i	Zi	•	
3) Type of Work Pg. 10f2	Lat. 1060 24 525	, Tr	5na 21	° 50 0		Tex		79934	
Reconditioning	4) Proposed Use (check)	X Monitor	OILE 2 I	59.6	Di	Grid# 4			
Replacement Deepening	Industrial Irrigation	Injection	Darker.	onmental So	II Boring 🖵 Di	omestic	5)	NT	
VMW-19(3-strings)	Rig Supply	f Public Supe	Ju well ou	Supply —	De-watering L nitted? Yes	☐ Testwell	٥		
6) Drilling Date .	Diameter of Hole	r rabite dapp	7) 1)	elling Ma	ulled? L Yes	No No		•	
Started 12 / 16 / 04	Dia.(in) From (ft)	To (ft)		inning Me	thod (check)	☐ Driven		•	
	11 0			ir Kotary C	Mud Rolary Cable Tool	LΩ Bored			
Completed 12 / 16 /04		68		ir riammer	Cable Tool	U Jened			
				iner					
From (ft) To (ft) Descrip	Ton and or the state of the sta	Latin Til	- 						
From (ft) To (ft) Bescription and color of formation material				rehole Co	ompletion (Open Ho	le 🗆 Stra	ight Wall	
0-2ft. Clay/sand, brown, dry.				Under-reamed Gravel Packed Of Other SeePg. 2 If Gravel Packed six the interval from ft. to ft. Casta Plant Ripering W. B. Streen Plata					
2-7ft. Silt/sand, caliche, light brown,					Pire and P	A Sereen	Bata	Line to see Charles	
dry.			Dia.	New	Steel, Plastic,	elc.	Setting (f		
7-68ft. Sand, gravel, brown, dry.				Or Used	Perf., Slotted, Screen Mfg.,	etc Commonial		Casing	
		•	7-1	New			J	To Screen	
				New	PVC Car		50-65		
			1	Mew	PVC Cas			0.01 25B1k.	
			1	New	PVC Scr	_	25-30		
			9) Cer	nentino F	lata Soo t	c 0#28-	7 ~ ·	*	
711			Ceme	nting from _		fi, #	of sacks use	w o ed	
(Use reverse side of Well C			Method	Used_Tr	emie pla	ced Vi	of sacks use	:db:	
13) Plugged				Method Used Tremie placed Via Auger Cementing By Tierra Drilling Distance to septic system field or other concentrated contamination 25 ft.					
From (ft) To (ft) From (ft)		cks used	Method	: to septic sy: of verificatio	slem field or othe on of above distan	r concentrated	contaminati	ion 2,5 ft.	
		icks used							
			U Specif	rface Con	ipletion			- 1	
14) Type Pump				☐ Specified Surface Slab Installed X Specified Surface Sleeve Installed					
☐ Turbine ☐ Jet ☐ Submersible ☐ Cylinder .				Pilless Adapter Used Approved Alternative Procedure Used					
Depth to pump bowls, cylinder, let etc	ft.								
15) Water Test N/A				11) Water Level N/A Static levelft. below Date/					
Typetest U Pump Bailer I Jetted Estimated				low	ft. below Dat gpm. Date		/	İ	
.o) Water Quality									
Did you knowingly penetrate a strata which copyain and admirate				12) Packers N/A Type Depth					
YES NO If yes, did you submit a RE	PODT OF UNIOCOM COLD TO	R .							
as a chemical analysis made 🔲 Yes 🗶	No	— ļ							
mpany or individual's Name (type o	Tierra Dri	lling	. F	O *	Lic	No			
dress 5309 Mace St. St.	Tierra Dri	1			nc.	^{No.} 2994	W		
1,1200 00. 00	AITE AI	City	El Pas	50	State	Texas	Zip 79	932	
nature July 17 MEDELLE	e 01,03,0	5							
			ure	10.02					

STATE OF TEXAS WELL REPORT for Tracking #96258

Owner:

City of El Paso

Owner Well #:

GMP 20

Address:

NEC McCombs Dr. @ Stan Roberts El Paso, TX

Grid #:

49-05-3

Well Location:

Same

Latitude:

31° 59' 37" N

Well County:

El Paso, TX

Longitude:

106° 24' 31" W

Elevation:

El Paso No Data

GPS Brand Used:

Motorola

Type of Work:

New Well

Proposed Use:

Monitor

Drilling Date:

Started: 9/8/2006 Completed: 9/11/2006

Diameter of Hole:

Diameter: 10.25 in From Surface To 65 ft

Drilling Method:

Hollow Stem Auger

Borehole Completion: Other: Pea Gravel 58-65',23-53',3-18'

Annular Seal Data:

1st Interval: From 0 ft to 1 ft with Concrete (#sacks and material)

2nd Interval: No Data 3rd Interval: No Data Method Used: Gravity

Cemented By: Crew

Distance to Septic Field or other Concentrated Contamination: No Data

Distance to Property Line: No Data Method of Verification: No Data Approved by Variance: No Data

Surface Completion: Surface Sleeve Installed

Water Level:

Static level: No Data Artesian flow: No Data

Packers:

No Data

Plugging Info:

Casing or Cement/Bentonite left in well: No Data

Type Of Pump:

No Data

Well Tests:

No Data

Water Quality:

Type of Water: No Data Depth of Strata: No Data

Chemical Analysis Made: No Data

Did the driller knowingly penetrate any strata which contained undesirable constituents: No Data

Certification Data:

The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Company

Total Support Services

Information:

P.O. Box 81621

Austin, TX 78708

Driller License Number: 54611

Licensed Well Driller Signature:

Brian Kern

Registered Driller

Apprentice Signature: No Data

Apprentice Registration Number:

No Data

Comments:

3 Nested Wells:

1st @ 0-10' w/Bentonite 1-3', Pea Gravel 3-18'; 2nd @ 0-25' w/Bentonite 18-23, Pea Gravel

23-53; 3rd @ 0-65' w/Bentonite 53-58', Pea Gravel 58-65.

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking #96258) on your written request.

Texas Department of Licensing & Regulation P.O. Box 12157 Austin, TX 78711 (512) 463-7880

DESC, & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

From (ft) To (ft) Description 0 to 7 Tan Silty Sand 7 to 18 Tan Sand 18 to 24 Brown Gravelly Sand 24 to 65 Tan Sand Dia. New/Used Type Setting From/To 1 New PVC Riser 0/60 Sched. 40 1 New PVC Screen 60/65 0.010 Slotted

1 New PVC Riser 0/20 Sched, 40 1 New PVC Screen 20/25 0.010 Slotted

1 New PVC Riser 0/5 Sched.40

1 New PVC Screen 5/10 0.010 Slotted

STATE OF TEXAS WELL REPORT for Tracking #96259

Owner:

City of El Paso

El Paso, TX

Owner Well #:

GMP 21

Address:

NEC McCombs Dr. @ Stan Roberts

Grid #:

49-05-3

Well Location:

Same

El Paso , TX

Latitude:

31° 59' 34" N

Well County:

El Paso

Longitude:

106° 24' 31" W

Elevation:

No Data

GPS Brand Used:

Motorola

Type of Work:

New Well

Proposed Use:

Monitor

Drilling Date:

Started: 9/8/2006 Completed: 9/11/2006

Diameter of Hole:

Diameter: 10.25 in From Surface To 65 ft

Drilling Method:

Hollow Stem Auger

Borehole Completion:

Other: Pea Gravel 58-65',23-53',3-18'

Annular Seal Data:

1st Interval: From 0 ft to 1 ft with Concrete (#sacks and material)

2nd Interval: No Data 3rd Interval: No Data Method Used: Gravity Cemented By: Crew

Distance to Septic Field or other Concentrated Contamination: No Data

Distance to Property Line: No Data Method of Verification: No Data Approved by Variance: No Data

Surface Completion: Surface Sleeve Installed

Water Level:

Static level: No Data Artesian flow: No Data

Packers:

No Data

Plugging Info:

Casing or Cement/Bentonite left in well: No Data

Type Of Pump:

No Data

Well Tests:

No Data

Water Quality:

Type of Water: No Data Depth of Strata: No Data

Chemical Analysis Made: No Data

Did the driller knowingly penetrate any strata which contained undesirable constituents: No Data

Certification Data:

The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Company

Total Support Services

Information:

P.O. Box 81621

Austin, TX 78708

Driller License

Number:

54611

Licensed Weil Driller Signature:

Brian Kern

Registered Driller

Apprentice

No Data

Signature:

Apprentice Registration Number:

No Data

Comments:

3 Nested Wells:

1st @ 0-10' w/Bentonite 1-3', Pea Gravel 3-18'; 2nd @ 0-25' w/Bentonite 18-23, Pea Gravel

23-53; 3rd @ 0-65' w/Bentonite 53-58', Pea Gravel 58-65.

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking #96259) on your written request,

Texas Department of Licensing & Regulation P.O. Box 12157 Austin, TX 78711 (512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

From (ft) To (ft) Description 0 to 7 Tan Silty Sand 7 to 18 Tan Sand 18 to 24 Brown Gravelly Sand 24 to 65 Tan Sand

Dia. New/Used Type Setting From/To 1 New PVC Riser 0/60 Sched. 40

1 New PVC Screen 60/65 0.010 Slotted

1 New PVC Riser 0/20 Sched. 40 1 New PVC Screen 20/25 0.010 Slotted

1 New PVC Riser 0/5 Sched,40 1 New PVC Screen 5/10 0.010 Slotted STATE OF TEXAS WELL REPORT for Tracking #96260

Owner:

City of El Paso

Owner Well #:

GMP 22

Address:

NEC McCombs Dr. @ Stan Roberts

Grid #:

49-05-3

Well Location:

Same

Latitude:

31° 59' 36" N

Well County:

El Paso, TX

El Paso, TX

Longitude:

106° 24' 31" W

El Paso

Elevation:

No Data

GPS Brand Used:

Motorola

Type of Work:

New Well

Proposed Use:

Monitor

Drilling Date:

Started: 9/8/2006 Completed: 9/11/2006

Diameter of Hole:

Diameter: 10.25 in From Surface To 65 ft

Drilling Method:

Hollow Stem Auger

Borehole Completion: Other: Pea Gravel 58-65',23-53',3-18'

Annular Seal Data:

1st Interval: From 0 ft to 1 ft with Concrete (#sacks and material)

2nd Interval: No Data 3rd Interval: No Data Method Used: Gravity Cemented By: Crew

Distance to Septic Field or other Concentrated Contamination: No Data

Distance to Property Line: No Data Method of Verification: No Data Approved by Variance: No Data

Surface Completion: Surface Sleeve Installed

Water Level:

Static level: No Data

Artesian flow: No Data

Packers:

No Data

Plugging Info:

Casing or Cement/Bentonite left in well: No Data

Type Of Pump:

No Data

Well Tests:

No Data

Water Quality:

Type of Water: No Data Depth of Strata: No Data

Chemical Analysis Made: No Data

Did the driller knowingly penetrate any strata which contained undesirable constituents: No Data

Certification Data:

The driller certifled that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Company Information: Total Support Services

P.O. Box 81621

LOG OF TEST BORING NO. PV-3



PROJECT McCombs Municipal Solid Waste Landfill 6-717-500029 JOB NO. DATE November 13, 2006 SHEET LOGGED E. Osofo
DWG BY E. Osofo
CHEKED BY D. Hartsfield
DRILLED BY Tiens OF CME 76 6 5/8' Hollow Stem Auger RIG TYPE Moisture Content % of Dry Weight BORING TYPE Hand Penatromole (tons/sq. ft.) SURFACE ELEV. Existing Sample Type Unified Soll Classification DATUM Fields town topo y H2S 回 8 REMARKS VISUAL CLASSIFICATION SANDY SILT, nonplastic, light gray, ML SM SILTY SAND, nonplastic, light brown, Note: Trash which included plastic, paper, glass, metal mixed with . CLAYEY SAND mixed with trash, low SC 10 plasticity, gray, dry to damp. 15 20 CL SANDY CLAY mixed with trash, low plasticity, dark gray, damp. 30 David L. Hartsñeld 100 0 5 5 7 0

	G	ROUND WATE	R	SAMPLE
i	DEPTH	HOUR	DATE	A - Auger cutines S - 2" O.D. 1.38" [D. tu
1				U-3° O.D. 2.42° I.D. E
1				T-3"O.D. thin worked

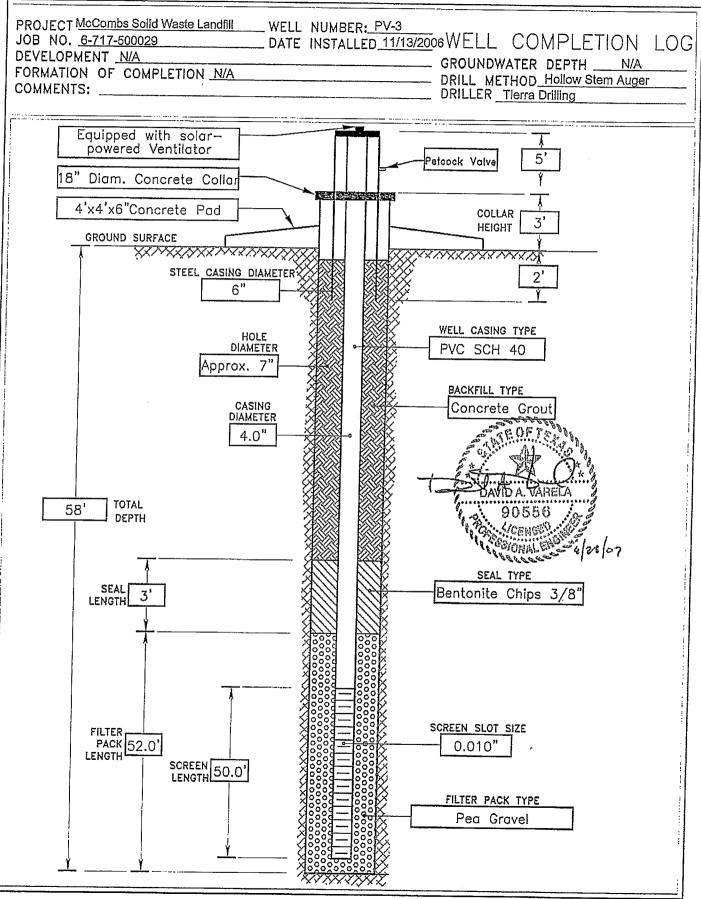
LOG OF TEST BORING NO. PV-3



PROJECT McCombs Municipal Solid Waste Landfill 6-717-500029 DATE November 13, 2006 JOB NO. SHEET OF LOGGED E. Osorio E. Osorio RIG TYPE CME 75
BORING TYPE 6.5/8' HC
SURFACE ELEV. Existing CME 75 6 5/8' Hollow Stem Auger DWG BY E. Osorio
CHEKED BY D. Hartsfield
DRILLED BY Tlens Blows per foot 140 lb, 30" free-fall drop hammer Moisture Content % of Dry Weight Hand Penetrometer (tons/sq. ft.) Unified Soil Classification Sample Type Depth in feet DATUM אין אירי האין אינו אינו אינו אינו אינו אינו HZS 回 ဗ္ဗ REMARKS VISUAL CLASSIFICATION SANDY CLAY mixed with trash, low 7 5 SC 0 plasticity, dark gray, damp. Decaying trash 60 | 100 | 20 100 Note: Strong sewer odor, moderately stained 43 100 0 1500100 0 60 Auger Stopped at 60' 65 David L. Hartsfield Geology 2707 70-75-80

G	ROUND WATE	R	SAMPLE TYPE
DEPTH	HOUR	DATE	A - Auger cutangs B - Block sample S - 2" O.D. 1.38" LD, tube sample
 			U - 3" O.D. 2.42" t.D. tube sample T - 3" O.D. thin-walled Sheby tube
<u> </u>	L		ייייי וויייייייייייייייייייייייייייייי





LOG OF TEST BORING NO. PV-4 PROJECT McCombs Municipal Solid Waste Landfill



6-717-500029 DATE November 9, 2006 JOB NO. LOGGED E. Osorio
DWG BY E. Osorio
CHEKED BY D. Harlsfield
DRILLED BY Tierra SHEET OF CME 75 6 5/8' Hollow Stem Auger RIG TYPE Hand Penatrometer (tons/sq. ft.) Molsture Content % of Dry Weight Blows per foot 140 lb. 30* free-fall drop hammer BORING TYPE SURFACE ELEV. Existing Sample Type Unified Soll Classification Depth in feet DATUM Sample H2S 8 亘 REMARKS VISUAL CLASSIFICATION SILT WITH SAND, nonplastic, light ML brown, dry. ML SILT WITH SAND mixed with trash, Note: Moderate methane odor, slightly stained soils nonplastic, dark gray, dry to damp. 5 Note: Added water to aid 10 10 4 ٥ drilling. Note: Added water to ald 7 drilling. 20 Note: Added water to ald 13 6 0 drilling. 25 SM Note: Added water to aid SILTY SAND mixed with trash, non drilling. plastic, dark gray. Note: High (sweet) 30 methane odor, slightly 131 9 0 stained solls David L. Hartsfield Note: Added water to aid 35 drilling. 124 100 0 SC 7 0 Note: Added water to aid CLAYEY SAND, low plasticity, dark 100 drilling. gray.

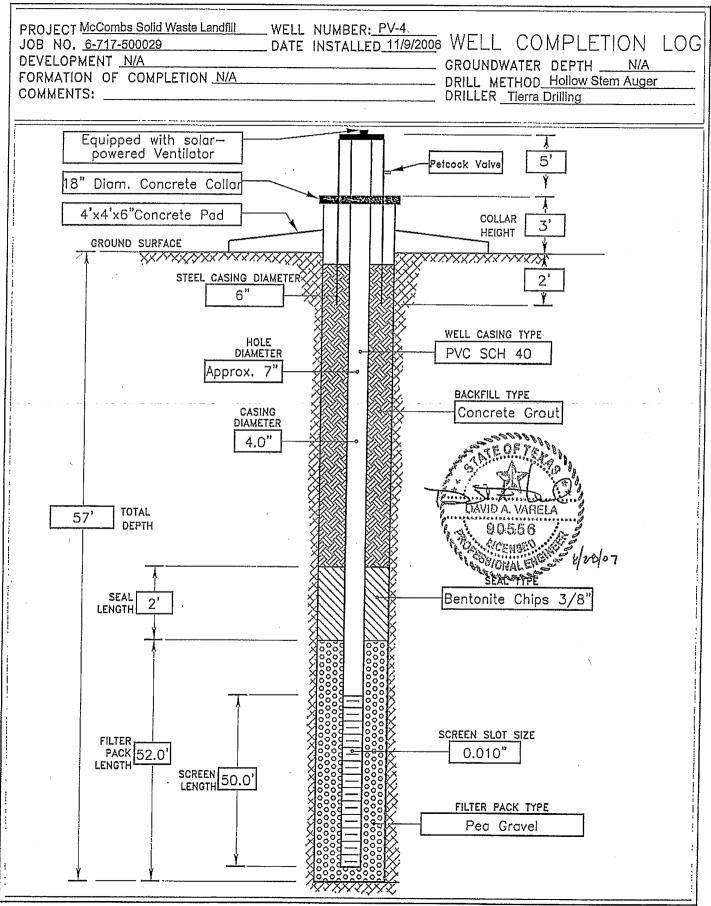
i	G G	ROUND WATE	₹	.1.	SAMPLE:	TYPE_
	DEPTH	HOUR	DATE	1	A - Auger cattings S - 2" O.D. 1.38" LD. tub	B-8kx
				H	U-3" O.D. 2.42" I.D. 656	e samoie
					T-3° O.D. thin wated St	relby tub

LOG OF TEST BORING NO. PV-4



PROJECT McCombs Municipal Solid Waste Landfill 6-717-500029 JOB NO. DATE November 9, 2006 SHEET_ OF_ 2 LOGGED E. Osorio
DWG BY E. Osorio
CHEKED BY D. Harisfield
DRILLED BY Tierra CME 75 6 5/8' Hollow Stem Auger RIG TYPE Blows per foot 140 lb. 30' free-fall drop hammer Hand Penetrometer (tons/sq. ft.) Moisture Content % of Dry Weight BORING TYPE Sample Type Unified Soil Classification SURFACE ELEV. Existing Depth in feet DATUM H2S 垣 8 REMARKS VISUAL CLASSIFICATION CLAYEY SAND, low plasticity, dark 100 0 SC 7 Note: Added water to gray. aid drilling. Note: Added water to 8 27 0 aid drilling. 50 6 3 0 CL SANDY CLAY, medium to high Note: Added water to plasticity, brown with dark gray, damp. aid drilling. 50 26 0 CH Note: Auger got stuck FAT CLAY, high plasticity, brown, dry. 68 100 0 in clay material. 60 -Auger Stopped at 60' 65-David L. Hartsfield 70 75 -80 GROUND WATER DEPTH | HOUR | SAMPLE TYPE
A-Abger crange
S-2*O.D. 1:38*1D. bibe sample
U-3*O.D. 2:42*1D. bibe sample
T-3*O.D. bib-walled Shežby kibe





LOG OF TEST BORING NO. PV-5 PROJECT McCombs Municipal Solid Waste Landfill



6-717-500029 DATE November 9, 2006 JOB NO. SHEET_ OF_ LOGGED E. Osorio
DWG BY E. Osorio
CHEKED BY D. Hertsfield RIG TYPE CME 76 Blows per foot 140 lb. 30" free-fall drop hammer Hand Penatromater (tons/sq. ft.) Moisture Content % of Dry Weight BORING TYPE 6 5/8' Hollow Stem Auger Unified Soil Classification Sample Type SURFACE ELEV. Existing DRILLED BY Tlema DATUM Falls PRO NOT YES THE WAY 펄 8 REMARKS VISUAL CLASSIFICATION SANDY SILT, nonplastle, light gray, ML dry. ML 0 0 SANDY SILT mixed with trash, 0 nonplastic, light gray, dry. 5 0 0 0 Note: Added water to aid Q 149 12 drilling. 15-16 54 0 Note: Hit a tree log, had to stop to get rid of wood plug. Added water to aid drilling. 20 Note: Added water to aid 0 ٥ 0 drilling. SC Note: Added water to ald CLAYEY SAND, very low plasticity, drilling. dark gray. 83 24 0 SANDY CLAY, low plasticity, graY, 30 CŁ Ö ٥ Q moist (possibly from water added on 25' bgs). 35 183 | 100 0 David L. Hartsfield 1100 100 2 SAMPLE TYPE
A - Auger curings
B - Block sample
S - 2" O.D. 138" I.D. tube sample
U - 3" O.D. 242" ID. tube sample
T - 3" O.D. thin-wailed Sheby tube

LOG OF TEST BORING NO. PV-5



PROJECT McCombs Municipal Solid Waste Landfill 6-717-500029 DATE November 9, 2006 OF 2 CME 75 6 5/8' Hollow Stem Auger SHEET RIG TYPE CME 75
BORING TYPE 6.5/8' Ho
SURFACE ELEV. Existing DWG BY E. Osorlo
CHEKED BY D. Hartsfield
DRILLED BY Tlerra Blows per foot 140 lb. 30" free-fall drop hammor Hand Penetrometer (tons/sq.,ft.) Molsture Content % of Dry Weight Sample Type Unified Soil Classification Depth in feet DATUM 핔 REMARKS VISUAL CLASSIFICATION SANDY CLAY, low plasticity, gray, CL 110d 100 2 moist (possibly from water added at 25' bgs) GRAVELLY SAND, nonplastic, light 3 330 100 gray, damp. 50 100 Note: High sewer odor, slightly stained. 55 196 100 240 100 60 Auger Stopped at 60' 65-David L. Hartsfield 75. 80

	KOUND WASE	<u> </u>	1	i.
DEPTH	HOUR	DATE	1	I
			1	i
			1	İ

SAMPLE TYPE

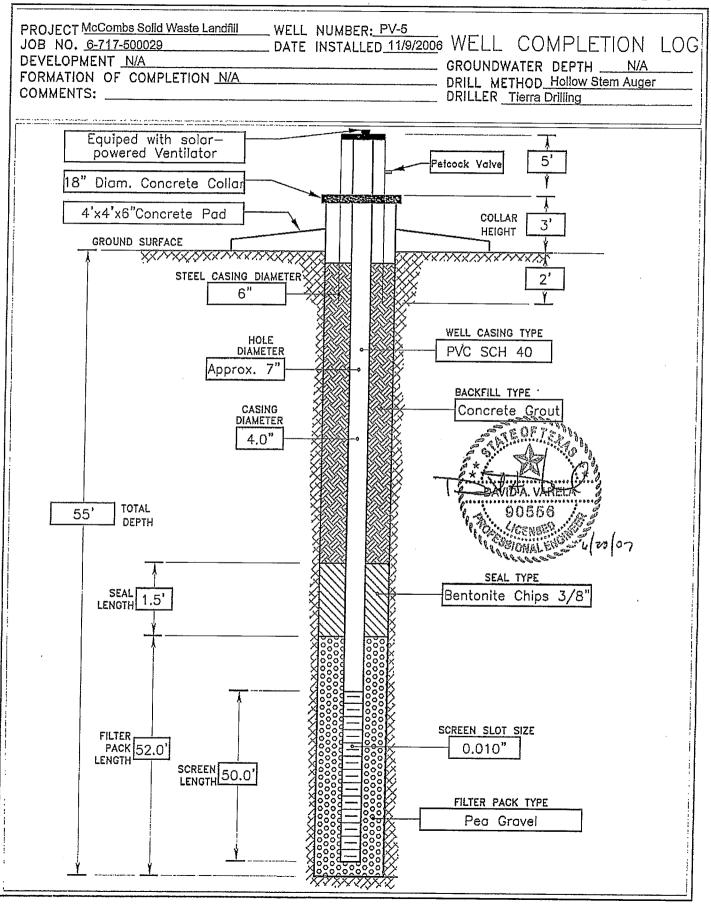
A-Auger carries

S-2*O.D. 1.35* I.D. kibe sample

U-3*O.D. 2.42* I.D. kibe sample

T-3*O.D. thin-walled Sheby tible







LOG OF TEST BORING NO. PV-6
PROJECT McCombs Municipal Solid Waste Landfill
JOB NO. 6-717-500029 DATE November 10, 2006 DATE November 10, 2006 SHEET_ OF LOGGED DWG BY E. Osorio E. Osorio CME 75 6 5/8' Hollow Stem Auger RIG TYPE Blows per foot 140 lb. 30" free-fall drop hammer Hand Penetrometor (tons/sq. (t.) Moisture Conlent % of Dry Weight BORING TYPE CHEKED BY D. Harlsfleid SURFACE ELEV. Existing Depth in feet Sample Type Unified Soll Classification DRILLED BY Tiena DATUM FZS 回 8 REMARKS VISUAL CLASSIFICATION SILTY SAND, nonplastic, light brown, SM dry to damp. SILTY SAND mixed with trash, Note: Slight sewer odor, slight stain nonplastic, light gray, damp. SM Note: Slight to 10 moderate sewer odor, 0 63 10 slight stain 15 0 Note: tree cuttings 102 13 20 83 | 10 0 25 12 0 Note: Decomposing SANDY CLAY mixed with trash, low SC organic matter plasticity, black, damp, 30 250 100 35 David L. Hartsfield 200 100 566 100 1

GROUND WATER

SAMPLE TYPE

- Augler citizings B - Block sample
- 2° O.D. 138° I.D. tube sample
- 3° O.D. 242° I.D. tube sample

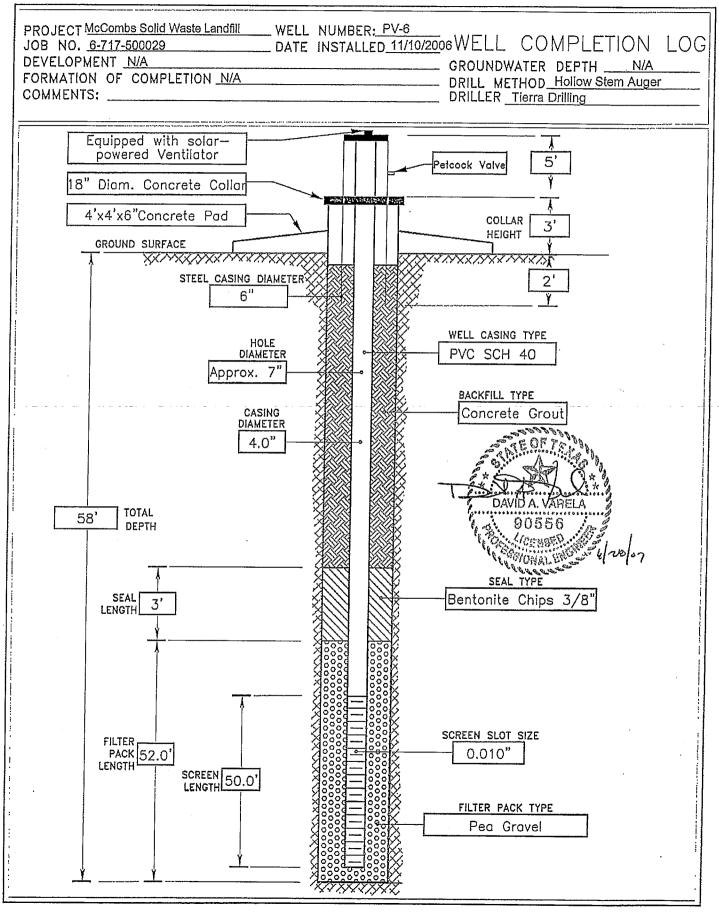
LOG OF TEST BORING NO. PV-6



PROJECT McCombs Municipal Solid Waste Landfill 6-717-500029 DATE November 10, 2006 JOB NO. OF 2 CME 75 6 5/8' Hollow Stem Auger SHEET LOGGED E. Osofo
DWG BY E. Osofo
CHEKED BY D. Harlsfield
DRILLED BY Tierra RIG TYPE CME 75
BORING TYPE 6 5/8' Ho
SURFACE ELEV. Existing Sample Type
Blows per foot
140 lb. 30' freefall drop hammer
Hand Ponetrometer
(tons/sq. ft.)
Molsture Content
% of Dry Weight Unified Soll Classification Depth in feet DATUM HZS 回 8 REMARKS VISUAL CLASSIFICATION SC 566 100 1 CLAYEY SAND mixed with trash, low plasticity, dark gray, damp. 280 100 0 50 -17 100 0 Note: contains lots of 65-0 0 organic matter 60 · Auger Stopped at 60' 65 David L. Hartsfield 70 -75 -80

DEPTH HOUR DATE A-Auger outings B-Book sample	╗
S - 2" O.D. 1.38" I.D. tube sample	- 1
U - 3" O.D. 2.42" I.D. tube sarrole	
T-3" O.D. Win-walled She by tibe	_







LOG OF TEST BORING NO. PV-7
PROJECT McCombs Municipal Solid Waste Landfill
JOB NO. 6-717-500029 DATE November 13, 2006

10	3 NO	6-/1	7-5	00029		DATE	Nove	mber	13, 2	2006	SHEET 1 OF 1 LOGGED E. Osorio
in faet	las l		э Туре	Blows per foot 140 lb. 30" free- falf drop hammer	Hand Penetrometer (fons/sq. ft.)	Moisture Content % of Dry Weight	Soil ication				RIG TYPE CME 75 DWG BY E. Osorio BORING TYPE 8 5/8' Hollow Stem Auger CHEKED BY D. Hartsfiel SURFACE ELEV. Existing DRILLED BY Tierra DATUM Fig. 12-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-
Depth in feet	Graphical Log	Sample	Sample Type	Blows 140 lb. fall dro	Hand Po (tons/s	Moistu % of D	Unified Soil Classification	8	3 =	HZS	REMARKS VISUAL CLASSIFICATION
-0-	1777						SC	T	T		CLAYEY SAND, low plasticity, light
											brown, dry.
			_				SM	Ļ			SILTY SAND mixed with trash,
5	- : : : :	-	_					42	1 000	-	nonplastic, dark gray, dry to damp.
\parallel			_					15	35	0	
Ш			-					-	┼	-	
H		_	_					1	-		
]]		\dashv			\dashv		CL	-	-	-	GRAVELLY CLAY mixed with trash,
10-		\dashv	_					0	1	0	low plasticity, black, damp.
		十	7			$\neg \uparrow$		<u> </u>	+	1	
			7					1	1	 	
		$\Box \dagger$						İ			
,							CL		T	T	SANDY CLAY, low to medium
15~								110	10	0	plasticity, brown, damp.
			\perp								
		_	_					<u> </u>			THE OF TO
		\dashv	\dashv						<u> </u>		500
20~		-	\dashv						<u> </u>	-	
!		+	+			\dashv	<u> </u>	75	7	0	David L. Hartsfield
		+	+						├	-	Geology S
		十	+		-	\dashv			├	\vdash	2707
		\top	\dashv								CENSE
25	////	\top	+			_		58	7	0	No. of the second secon
]] }		\top	1						Ť		Dalfterfiel, p.c.
											6-28-7
							SC				CLAYEY SAND mixed with trash, low
30-	///\}_	\perp	\perp								plasticity, less than 1% peat content,
"			ļ		_			8	4	0	damp.
	////	_ -	4	- 1	-	_				\square	
	<i>////</i> }-	-	+		\perp	_					
{	////>	- -	+		\dashv	_	CL			$\vdash \vdash$	SANDY CLAY, low to medium
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8		1	T		1	\dashv			T	\neg	gray, damp.
			_				1				

G	ROUND WATE	<u>R</u>	SAMPLE TYPE
DEPTH	HOUR	DATE	A - Auger cultings B - Block semple
			S - 2" O.D. 1.38" I.D. tube sample U - 3" O.O. 2.42" I.D. tube sample
1	1-1		T-3" C.D. thin-walled She by tube

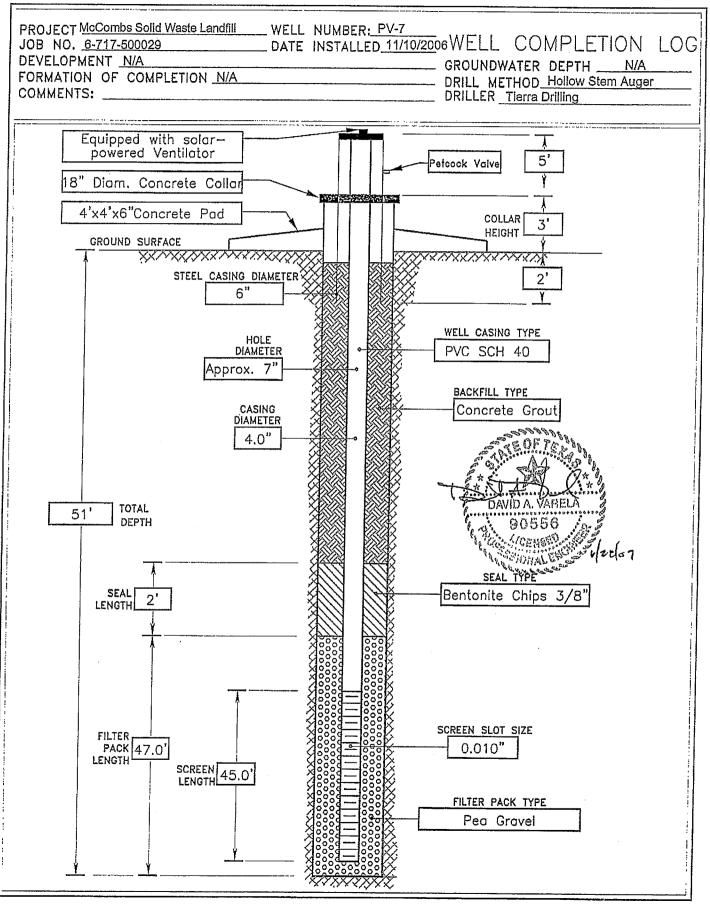
LOG OF TEST BORING NO. PV-7



PROJECT McCombs Municipal Solid Waste Landfill DATE November 13, 2006 6-717-500029 SHEET OF. LOGGED E. Osorio RIG TYPE **CME 75** DWG BY Sample Type
Blows per foot
140 lb. 30" freefall drop hammer
Hand Penotromotor
(tons/sq. ft.) Moisture Content % of Dry Weight CHEKED BY J. Bames
DRILLED BY Tiena 6 5/8' Hollow Stem Auger BORING TYPE Unlifled Soll Classification SURFACE ELEV. Existing Dapth in feet DATUM Fight pury the the HZS 旧 ႘ REMARKS VISUAL CLASSIFICATION GRAVELLY CLAY, low plasticity, light 875 100 0 CL gray, damp. 55 27 0 230 100 0 POORLY GRADED SAND, nonplastic, SP gray, damp. 55 350 0 60 Auger Stopped at 60' 65-David L. Hartsfield 70-75 -80 -

į	Gr.	CODIND MATE		H	SAMPLE ITPE	
i	DEPTH	HOXIR	DATE	Н	A - Auger custings B - Block sample	
į			21112	Н	S - 2" O.D. 1.35" I.D. lube sample	
				Н	U-3 0.D. 2.42 I.D. Libe sample	
			1	Ħ	T-3" O.D. thin-waited Shelby labe	i





Texas Department of Licensing and Regulation

Water Well Driller/Pump Installer Program

P.O. Box 12157, Austin, Texas 78711 (512) 463-8770 FAX (512) 463-8616

Toll Free (800) 803-9202 Email: water. well@license.state.tx.us

Report of Undesirable Water or Constituents

To be completed by the Well Driller: (Type or Print) 1. Well Driller: John P. McDuffee Tierra Drilling and Environmental Services, Inc. Address: 5309 Mace St. Suite A1 E1 Paso Texas (street or RFD) (city) (state) (zip) Landowner or Well Owner: The City of El Paso, Texas 2. Address: 2 Civic Center Plaza <u>Paso, </u> Texas 79901 (street or RFD) (oity) (state) Site location; 13600 McCombs El Paso, Texas 79934 3. Location of Well: County El Paso X See Attached Map Lat.: 106° '24.843' 59.380 Grid No.: 49-05-3 Miles or (Hwy or Rd) from (Hwy or Rd) from (Hwy or Rd) (NE, SW, clo.) (fown) 4. Reason for Report: ☐ Naturally-occurring, poor-quality groundwater encountered; Hydrocarbon contamination encountered (includes gasoline, diesel, etc.); Hazardous material/hazardous waste contamination encountered; Other; describe Monitor Wells-PV3C, Date Well Drilled: 11-08 to 11-13-2006 5. Type Well: PV4, PV5, PV6B, PV7 also; Environmental Soil Borings PV3A.PV3B,PV6A Has a State Well Report form relating to this well been forwarded to the Texas Department of Licensing and 6. Regulation? 🛛 Yes 🗌 No Date: 12-21-2006 I certify that while drilling, deepening or altering the above described well, undesirable water or constituents 7. was encountered and the landowner or well owner was informed by certified mail (recommended) that such well must be completed or plugged in accordance with 16 TAC Chapter 76. Date: 12-14-2006 Cert. Mail No.: 7005 1820 0001 0925 6909 Licensed Well Driller: John P. __ Lic. No.: 2994A Driller's Signature:

Send Original Copy by certified mail to TDLR, PO Box 12157, Austin, TX 78711 Send a Copy by certified mail (recommended) to the Landowner or Well Owner Keep a Copy for the Well Driller's records

Texas Department of Licensing and Regulation
Water Well Driller/Pump Installer Section
P.O. Box 12157 Austin, Texas 78711 (512)463-7880 FAX (512)463-8616
To!l free (800)803-9202

This form must be completed and filed with the department and owner within 60 days upon completion of the well.

Email address: water.well@license.state.tx.us Web address: www.license.state.tx.us

WELL REPORT	

Name: The City of Address: 2 Civic	City: State: Zip:
El Paso Texas Center Plaza	El Paso Texas 799
2) WELL LOCATION	
Well # or County: # of wells drilled DV 3 A F1 Dago	Physical Address: City:
1736 11 1030	13600 McCombs E1 Paso/79934
3) Type of Work	Long. 31 59.380' Grid# 49-05-3
A New Well	Monitor ☐ Environmental Soil Boring ☐ Domestic ☐ Extraction 5) njection ☐ Closed-Loop Geothermal ☐ De-watering ☐ Testwell
Rig Supply 🖸 Stock 🗘 Pt	lic Supply – If Public Supply, were plans approved? Yes \(\text{No} \)
6) Drilling Date Diameter of Ho	7) Drilling Method (check)
Started 11 / 08 /06 Dia.(in) From (ft)	To (ft)
11 Surface	20 Bored Air Hummer Cable Tool
Completed 11 / 08 /06	☐ Jetted ☑ Hollow Stem Auger
	Reverse Circulation Other
From (ft) To (ft) Description and color of formati	
0 2 Sand, brown, dry.	
2 20 Land-fill trash.	Gravel packed interval from: ft. to: ft. Size:
	Casing, Blank Pipe, and Well Screen Data
	New Steel, Plastic, etc. Setting (ft) Gage Dia. Or Perf., Slotted, etc Casir
	(in.) Used Screen Mfg., if commercial From To Screen
	None used
	9) Annular Seal Data: i.e. (from 0) to 100 ft #sacks & material 13 ces
	from 0 ft. to 20 ft. #sacks & material Backfil from ft. to ft. #sacks & material
(Use reverse side of Well Owner's copy, If necessary)	fromft. toft. #sacks & material Method Used <u>Gravity</u> Performed By <u>Tierra</u>
3) Plugged Well plugged within 48 hours	Method Used Gravity Performed By Tierra Distance to septic field or other concentrated contamination 0
Casing left in well: Coment/Bentonite placed in well: rom (ft) To (ft) From (ft) To (ft) # Sack	Distance to Property Line 25 ft Method tabe
N/A Backfill	
IV/A DAGNITIL	10) Surface Completion (If steel cased, leave blank) U Surface Slab Installed U Surface Sleeve Installed
	O Pitless Adapter Used Cap
4) Type Pump N/A 1 Turbine □ Jet □ Submersible □ Cylinder	11) Water Level N/A
Other	Static levelft. Date:/ Artesian Flowgpm
epth to pump bowls, cylinder, jet etc.,ft.	12) Packers: N/A
5) Water Test N/A	Type Depth Type Depth
rpe fest Pump Bailer Jetted Estimated ield: gpm with ft. drawdown after hrs.	
5) Water Quality spe of water N/A Depth of Strata: W	a chemical analysis made? DYes A No
5) Water Quality The of water N/A Depth of Strata: W The dyou knowingly penetrate a strata which contains undesirable constituents?	Yes 🗆 No If yes. Continue:
6) Water Quality pe of water N/A Depth of Strata: W d you knowingly penetrate a strata which contains undestrable constituents? peck One: Naturally poor-quality groundwater - type Hazardous material/waste contamination encountere	Yes □ No If yes, Continue: M Hydrocarbons (i.e. gas, oil, etc.) □ Other (describe)
b) Water Quality pe of water N/A Depth of Strata: W d you knowingly penetrate a strata which contains undesirable constituents? peck One: Naturally poor-quality groundwater - type Hazardous material/waste contamination encountere I certify that while drilling, deepening, or otherwise altering	Yes \(\sigma\) No If yes, Continue: \[\begin{align*} \text{M} Hydrocarbons (i.e. gas, oil, etc.)} \\ \text{O} Other (describe) \[\] the above described well, undesirable water or constituents was encountered.
b) Water Quality pe of water N/A Depth of Strata: W d you knowingly penetrate a strata which contains undesirable constituents? peck One: Naturally poor-quality groundwater - type Hazardous material/waste contamination encountere I certify that while drilling, deepening, or otherwise altering and the landowner was informed that such well must be com	Yes \(\sigma\) No If yes, Continue: \(\sigma\) Hydrocarbons (i.e. gas, oil, etc.) \(\sigma\) Other (describe) the above described well, undesirable water or constituents was encountered leted or plugged in such a manner as to avoid injury or political.
by Water Quality pe of water N/A Depth of Strata: W d you knowingly penetrate a strata which contains undestrable constituents? peck One: Naturally poor-quality groundwater - type Hazardous material/waste contamination encountere I certify that while drilling, deepening, or otherwise altering and the landowner was informed that such well must be come signing this well report, I certify that I drilled or supervised the drilling mpany & Individual's Name: (type or print)	Yes \(\sigma\) No If yes, Continue: \(\sigma\) Hydrocarbons (i.e. gas, oil, etc.) \(\sigma\) Other (describe) the above described well, undesirable water or constituents was encountered leted or plugged in such a manner as to avoid injury or pollution. If this well and that each and all of the statements herein are true and correct.
S) Water Quality The pe of water N/A Depth of Strata: William Depth of	Yes \(\text{No If yes, Continue:} \) \[\text{M Hydrocarbons (i.e. gas, oil, etc.)} \) \[\text{O Other (describe)} \] the above described well, undesirable water or constituents was encountered leted or plugged in such a manner as to avoid injury or pollution. If this well and that each and all of the statements herein are true and correct. \[\text{11ling & Env.Svc.Inc.} \] \[\text{Lic. No.:} \] \[\text{2994A} \]
by Water Quality The period water N/A Depth of Strata: Wide you knowingly penetrate a strata which contains undesirable constituents? The contains undesirable constituents? The contains undesirable constituents? The contains undesirable constituents? The contains undesirable constituents? The contains undesirable constituents? The contains undesirable contains undesirable contains undesirable contains undesirable contains undesirable contains undesirable contains undesirable contains undesirable contains undesirable contains undesirable contains undesirable contains undesirable constituents? The contains undesirable constituents? The contains undesirable constituents? The contains undesirable constituents? The contains undesirable constituents? The contains undesirable constituents? The contains undesirable constituents? The contains undesirable constituents? The contains undesirable constituents? The contains undesirable constituents? The contains undesirable constituents? The contains undesirable constituents? The contains undesirable constituents? The contains undesirable constituents? The contains undesirable constituents? The contains undesirable constituents?	Yes \(\text{No If yes, Continue:} \) \[\text{M Hydrocarbons (i.e. gas, oil, etc.)} \) \[\text{O Other (describe)} \) \[\text{No in the above described well, undesirable water or constituents was encountered leted or plugged in such a manner as to avoid injury or pollution. If this well and that each and all of the statements herein are true and correct. \] \[\text{illing & Env.Svc.Inc.} \] \[\text{Lic. No.:} 2994A \] \[\text{City: E1 Paso} \text{State: Texas} \text{Zip 7.9932} \]
S) Water Quality The pe of water N/A Depth of Strata: William Depth of	Yes \(\text{No If yes, Continue:} \) \[\text{M Hydrocarbons (i.e. gas, oil, etc.)} \) \[\text{O Other (describe)} \) \[\text{No in the above described well, undesirable water or constituents was encountered leted or plugged in such a manner as to avoid injury or pollution. If this well and that each and all of the statements herein are true and correct. \] \[\text{illing & Env.Svc.Inc.} \] \[\text{Lic. No.:} 2994A \] \[\text{City: E1 Paso} \text{State: Texas} \text{Zip 7.9932} \]

Texas Department of Licensing and Regulation

Water Well Driller/Pump Installer Section
P.O. Box 12157 Austin, Texas 78711 (512)463-7880 FAX (512)463-8616

Toll free (800)803-9202

This form must be completed and filed with the department and owner within 60 days upon completion of the well.

Email address: water, well@license.state.tx.us Web address: www.license.state.tx.us

				ALLECTION CITY THE	WELL			u(c)3, <u>11 1</u>	W.IICCHSC.SI	atc.tx.us		
1) OWNE	מ		A, .	WELL IDEN	TIFICATI	ONA	NDLO	CATIO	N DATA			
	City		Address:	0 61 1		City				IState:	Zip:	
	o Texa		j	2 Civic r Plaza		1 -		Paso		Texas	, ,	2901
1 ::	LOCATIO				· .	•					.)	1301
Well#or	lled PV3)		County:				ical Add			City:	·	
		<u> </u>	 	Paso	• •	1		McCom		El Pa	so/799	34
3) Type of V		onditioning		06 ⁰ 24.8 ed Use (check		Lon			380'	. Grid# 4		
☐ Replacemen	ıt 🖸 Deep		☐ Industrial☐ Rig Supp	☐ Irrigation ☐ ly ☐ Stock ☐ P	I Injection C Public Supply	Closed	-Loop C	Jeothermal	De-watering	☐ Testwell	5)	NT a
6) Drilling I		0 1 06	D	iameter of Ho	ole		7) Di	illing M	ethod (checl	c) ·		_
Started _	11 / 08	3 / 06	Dia.(in)	From (ft)	To (ft			Oriven 🔲 .	Air Rotary 🗆 Air Hammer 🗆	Mud Rotary Cable Tool		
Completed _	11 / 08	3 / 06	7	0	2	5	1_			1		
							J □ R	everse Circu	ollow Stem Aug alation	ger		
From (ft)	To (ft)	Descri	tion and co	l olor of format	ion materi	ol.	(8) Po		omulation	☐ Open Ho	3- D.O. 1	7 . 777 11
0	2			n, dry.			IJι	Inder-rea	med 🗆 Grav	el Packed XI	OtherBa	int Wall ckfil
2	20		1-fill				Grave	el packed in	terval from:	ft. to: , and Well So	ft. Siz	ze;
 		-						New	Steel, Plasti		Setting (fi)	
						_	Dia. (in.)	Or Used	Perf., Slotte	d, etc ., if commercial	From To	Casing Screen
									N/A	., 12 commercial	110/11 10	Screen .
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		· · · · · ·				_					-	
		 			- · · ·	-						<u> </u>
						_	from .	Oft.	. to <u>25</u> _	. <i>(from <u>0</u> ft to <u>100 f</u>t</i> ft. #sacks & mai	erial Back	il <u>13 cement)</u> f i 1 1 1
	(Use reverse si	ide of Well (Owner's copy. I	f necessary)			from .	ft.	to	ft. #sacks & mate ft. #sacks & mate	erial	
13) Plugged			within 48 ho			-	Metho	d Used 😘	ravity	Performed B	v Tier	
Casing left in we From (ft)			nt/Bentonite pl	aced in well:	ks & Material		Distan	ce to Proper	ty Line 125	ft Method T	ape	U_ft.
N/A	10(10)	Backf		(II) # SHCI	KS & Material			d:JPM				
	ļ						IV) Su Suf	rrace Co ace Slab Ins		steel cased, leave Surface Sleeve		
14) Туре Рип	np N/A	L	 					ss Adapter l ater Leve	Jsed 🔯	Alternative Proc	edure Used	Cap
Turbine Other	np N/A	☐ Su	ibmersible 🛚	Cylinder			Static Jes	:el	ft. Da	ate:/	/	.
Depth to pump bo	wls, cylinder,	jet etc.,	fi.				Artesian 12) Pac	ckers: 1	gpm			
15) Water Te Cype test 🛭 Pu		П т	D 500-004			T	Type		Depth	Type		Depth
	m with	ft. drawdo		hrs.	•							
I6) Water Qu Type of water		Danek	of Strata:		7				*		· · · · · · · · · · · · · · · · · ·	
Did you knowingl	y penetrate a si	trata which c	ontains undesid	able constituents?		No If y	es, Conti	nue:				
Check One:			ity groundwate /waste contami	r - type nation encounters			carbons (describ	(i.e. gas, oil e)	, elc.)			
🗏 l certij	ry that while a	drilling, dee	epening, or or	herwise altering veil must be con	e the above i	describ	ed well.	undesiral	ole water or co	onstituents was	- encountered	1
y signing this we	ll report, I ce	rtify that I c	irilled or supe	rvised the drilling	g of this well	and the	nt each	a manner and all of th	<i>as to avoia in</i> he statements f	JUIS' <i>or pollutio</i> iereln are true a	ni. .nd correct.	
ompany & Ind	lividual's Na	ıme: (type	or print)	Tierra D	rillir	ıg &	Env	.Svc.	Inc.	Lic. No.:	2994A	
idress: 530	9 Mace	St.	Ste.A1	.>	Cit	y: E	1 [.] Pa	so	St	ate: Texas	Zip799	32
	lm A.M.C				ich s	ignatur	e;					
Licensed D LR FORM 001W		railer (TDLR	Date (Original)	Land	lowner	(copy)	Apprentic		Ap Installer (copy)	prentice Reg. N	lumber

Texas Department of Licensing and Regulation
Water Well Driller/Pump Installer Section
P.O. Box 12157 Austin, Texas 78711 (512)463-7880 FAX (512)463-8616
Toll free (800)803-9202

This form must be completed and filed with the department and owner within 60 days

Simple Reconditioning Proposed Use (check) Monitor Environmental Soil Bording Domestic Execution 5 Replacement Despensing Redustrial Infestion Infestion Infestion Closed-tool Close	Em	ail address: <u>water.well@license.sta</u> WFT			tate.tx.us	a completion of	the well
Name: The City of Recast Center Plaza El Paso Texas		A. WELLIDENTIFICA	TIONA	ND LOCATION DATA			
Triff City Century Plaza E1 Page Texas 79901	1) OWNER:					1.000	
2) WELLLOCATION	Name: The City of		- 1	•		•	0001
27 Well for 13 150 24 14 16 24 16 16 16 16 16 16 16 1		Center Plaza				<u>s 79</u>	<u> </u>
Well for growth of the pygo See Paso Physical Address: Paso	2) WELL LOCATION		• •		<u> </u>		· ::'.
Completed 11 / 13 / 06	Well#or	-			, -	/~ o o o	
Simple Reconditioning Proposed Use (check)20 Monitor Evertemental Soil Boring Domestic Estatation Simple Industrial Infegation Infegation Closed-top Construent Deveraging Tested Path Supply Fabric Supply	. # of wells drilled PV3C	E1 Paso	13	600 McCombs	<u> E1 Pa</u>	so/7993	4
Simple Reconditioning Proposed Use (check)20 Monitor Evertemental Soil Boring Domestic Estatation Simple Industrial Infegation Infegation Closed-top Construent Deveraging Tested Path Supply Fabric Supply	3) Type of Work	Lat. 106 ⁰ 24.843'	Lo	ng. 31 ⁰ 59.380'	Grid# 4	9-05-3	
Started 1 / 13 / 06 Diac(in) Diac(in		4) Proposed Use (check) M Mon	itor 🛛 En	vironmental Soil Boring 🛛 Domes	tic 🗆 Extraction [5)	N
Drilling Date Started 1/ 13 / 06 Dia (in) From (it) To (it) Driven Art Rebury Mod Robury Burded Air Hammer Cable Tool Driven Air Rebury Mod Robury Burded Air Hammer Cable Tool Driven Air Rebury Mod Robury Burded Air Hammer Cable Tool Driven Air Rebury Mod Robury Burded Air Hammer Cable Tool Driven Air Rebury Air	Replacement Deepening						
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Completed 11 / 15 / 16 7 0 60			o (fi)				e.
Completed 17 13 16 15 15 16 16 17 17				Bored Air Hammer	☐ Cable Tool		
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Colber Completion Color of formation material Color of formation material Some process of the completion Color of formation material Convenience Convenien	Completed 117 ±3 /116				uger		
0 2 Sand, brown, dry. 2 60 Land-fill trash. Casing, Blank Pipe, and Well Screen Data		1.					
Carried packed intered from: 6 f. ft. ft. 56.0 ft. Size: 3/ Casing, Blank Pipe, and Well Screen Data Dia	From (ft) To (ft) Descri	ption and color of formation ma	iterial				it Wal
2 60 Land-fill trash. Casing, Blank Pipe, and Well Screen Data Dia. Or Postage and Well Screen Data Dia. Or Postage and Well Screen Data A New PVC Screen, 8 58 0. MFG. 9) Annular Seal Data: i.e. time 2 pin 100 penses a material 1sk/cmt from 0.ft. to 3. ft. #sack & material 1sk/cmt from 3. ft. to 6. ft. #sack & material 1sk/cmt from 3. ft. to 6. ft. #sack & material 1sk/cmt from 3. ft. to 6. ft. #sack & material 1sk/cmt from 1. ft. to 6. ft. #sack & material 1sk/cmt from 1. ft. to 6. ft. #sack & material 1sk/cmt from 1. ft. to 6. ft. #sack & material 1sk/cmt from 1. ft. to 6. ft. #sack & material 1sk/cmt from 1. ft. to 6. ft. #sack & material 1sk/cmt from 1. ft. to 6. ft. #sack & material 1sk/cmt from 1. ft. to 6. ft. #sack & material 1sk/cmt from 1. ft. to 6. ft. #sack & material 1sk/cmt from 1. ft. to 6. ft. #sack & material 1sk/cmt from 1. ft. to 6. ft. #sack & material 1sk/cmt from 1. ft. to 6. ft. #sack & material 1sk/cmt from 1. ft. to 6. ft. #sack & material 1sk/cmt from 1. ft. to 6. ft. #sack & material 1sk/cmt from 1. ft. to 6. ft. #sack & material 1sk/cmt from 1. ft. to 6. ft. #sack & material 1sk/cmt from 1. ft. to 6. ft. #sack & material 1sk/cmt from 1. ft. to 6. ft. #sack & material 1sk/cmt from 1. ft. to 6. ft. #sack & material 1sk/cmt from 1. ft. ft. ft. ft. ft. ft. ft. ft. ft. ft	0 2 San	d. brown. drv.		Under-reamed XI Gra	ivel Packed 🔾	Other	
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Dia, Outer West Mis, if commercial From To Screen Mis, if commercial From To Screen Mis, if commercial From To Screen Mis, if commercial From To Screen Mis, if commercial From To Screen Mis, if commercial From To Screen Mis, if commercial From To Screen Mis, if commercial From To Misser, and M							
A New PVC Casing.	•			Dia. Or Perf. Sio	tted, etc		Casing
Section Sect				1 1		1 1 3	Screen
MFG Sp. Annular Seal Data; i.e. If I is a most the Manufact of				4 New PVC C	lasing.,	. ±8 8	Blk
9) Annular Seal Data; i.e. them 2 has look for mountain that the form 0 ft. to 3 ft. shacks & material Lisk / Cmt. from 0 ft. to 3 ft. shacks & material Lisk / Cmt. from 0 ft. to 3 ft. shacks & material Lisk / Cmt. from 3 ft. to 6 ft. shacks & material Lisk & material Lisk & material Lisk & material Lisk & material Lisk & material Lisk & material Lisk & material Lisk & material Lisk & material Lisk & material Lisk & material Lisk & material L				4 New PVC S	Screen,	8 28	_00
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Comparison of the comparison				9) Annular Seal Data:	.e. Ifrom 0 ft to 100 ft	#sacks & material	13 cemen
(Use reverse side of Well Owner's copy, If necessary) A				from <u>0</u> ft. to 3	ft, #sacks & mat	erial 15k/	cmt
Alternative Procedure Used Doursed Performed By Tierra Distance to septic field or other connectrated contamination O Distance to septic field or other connectrated contamination O Distance to Property Line 1.25ft Method Tape Verified: JPM Verified: JPM Verified: JPM Turbine Distance to Property Line 1.25ft Method Tape Verified: JPM Verifie	(Use reverse side of Wel	Owner's conv. If necessary)		from ft. to	tt. #sacks & mat ft. #sacks & mat	enal_ZSK/_ erial (chir
Distance to Property Line 12.5st Method Tape Verified: 1PM	<u>`</u>	***************************************		Method Used DOUTED	Performed B	y Tierra	a ī
To (ft) To (ft) From (ft) To (ft) #Sacks & Material used Verified: TPM		I WITHIN 45 HOURS N/A		Distance to septic field or other Distance to Property Line 15	concentrated contr 5 ft Method 7	amination	ft
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Surface Slab Installed Surface Sleeve Installed Pilless Adapter Used Alternative Procedure Used Alternative Procedure Used Alternative Procedure Used Alternative Procedure Used Alternative Procedure Used Alternative Procedure Used Alternative Procedure Used Alternative Procedure Used Pilless Adapter Used Alternative Procedure Used Alternative Reg. Number Alternative Reg. Nu				10) Surface Completion	If steel cased, leav	e blank)	-
Type Pump N/A Static level N/A Static level M/A Depth Type Depth Type Depth Type Depth M/A				☐ Surface Slab Installed	🗴 Surface Sleeve	Installed	
Turbine	d) Tung Pump		·····		☐ Alternative Proc	cedure Used	
Other puth to pump bowls, cylinder, jet etcft. Artesian Flow	Turbine Diet D	Submersible 🔲 Cylinder			Date: /	1	
Type Depth Type Depth	1 Other			Artesian Flow gpn			
pe test Pump Bailer Jetted Estimated eld:		tt.			77		D45
eld: spm with ft. drawdown after hrs. Was a chemical analysis made? Yes No	.5) Water Test N/A	T ===		Type Depui	1 ype		Debtu
Was a chemical analysis made? Yes No						·	
Was a chemical analysis made? Yes No		tost riter	··				
Naturally poor-quality groundwater - type	ype of waterN/ADep						
Apprentice Reg. Number Apprentice Reg. Number Apprentice Reg. Number Apprentice Reg. Number Apprentice Reg. Number Apprentice Reg. Number Apprentice Reg. Number Apprentice Reg. Number Apprentice Reg. Number Apprentice Reg. Number Apprentice Reg. Number							
and the landowner was informed that such well must be completed or plugged in such a manner as to avoid injury or pollution. signing this well report, I certify that I drilled or supervised the drilling of this well and that each and all of the statements herein are true and correct. Inpany & Individual's Name: (type or print) Tierra Drilling & Env.Svc.Inc. Lic. No.: 2994A City: E1 Paso State: Texas Zip79932 ature: Other McDuffe 12/08/C6 Signature: Licensed Driller (Fump Installer 12/108/C6) Licensed Driller (Fump Installer 12/108/C6) Apprentice Reg. Number	☐ Hazardous mater	ial/waste contamination encountered	□ Oti	er (describe)			
signing this well report, I certify that I drilled or supervised the drilling of this well and that each and all of the statements herein are true and correct. Inpany & Individual's Name: (type or print) Tierra Drilling & Env.Svc.Inc. Lic. No.: 2994A City: E1 Paso State: Texas Zip79932 ature: Oclup McDuffe 12/08/C6 Signature: Licensed Driller/Fump Installer 12/08/C6 Signature: Apprentice Reg. Number							
rigany & Individual's Name: (type or print) Tierra Drilling & Env. Svc. Inc. Lic. No.: 2994A City: E1 Paso State: Texas Zip79932 Signature: Other McDuffer 12/08/66 Signature: Lic. No.: 2994A State: Texas Zip79932 Apprentice Reg. Number	and the landowner was infor v signing this well report. I certify that	med that such well must be completed. I drilled or supervised the drilling of this	or plugge fine lieve	ea in such a manner as to avoid that each and all of the statement	mjury or polluti s herein are true	on. and correct	
ITIERTA Drilling & Env. Svc. Inc. 2994A dress: 5309 Mace St. Ste.A1 City: E1 Paso State: Texas Zip79932 ature: Oclus P. McDuffer 12 / 08/66 Signature: Licensed Driller/Fump Installer 12 Date Apprentice Reg. Number		pe or print)				J	
ature: Other McDuffee 12108166 Signature: - Licensed Driller/Fump Installer / Driver Date Apprentice Reg. Number		Tierra Drill					
Licensed Driller/Fump Installer / Date Date Apprentice Reg. Number	dress: 5309 Mace St.	Ste.A1	City: E	l Paso	State: Texas	Zip7993	32
- Licensed Driller/Pump Installer / Pump Installer Apprentice Reg. Number	nature: Ochmp. McDul	Lec 12108106	Signat	ure:			
	Licensed Driller/Pump Installer / (LR FORM 001WWD / 2-06		Landown			porentice Reg. N	uniber

Texas Department of Licensing and Regulation
Water Well Driller/Pump Installer Section
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Toll free (800)803-9202

Email address: water.well@license.state.tx.us Web address: www.license.state.tx.us WELL, REPORT

This form must be completed and filed with the department and owner within 60 days upon completion of the well.

<u> </u>					YYI	<u>א יוייי</u>	<u> Pr</u>	<u>/ I. l</u>						
1) OWNEI			A. V	VELL ID	ENTIFI	CATIC	IA NO	AD LO	CATION	VDATA	•		; :	
Name: The	e City		Address: 2	Civ:	ic		City				State:	l	Zip:	.001
El Paso			<u> Cente</u>	er Pla	ıza			_E1	<u>Paso</u>		<u> Texa</u>	<u>s </u>	<u></u>	901
2) WELL I	ÓCATION	· · · · · ·	County:	*			Phys	ical Addi	ress:	······································	City:	_ 	<u> </u>	• •
# of wells dril	led PV4		1	Pasc)		•		McCom	bs	El Pa	so/7	993	14
3) Type of V	York		Lat. 106	° 24.	8431		Lon	g. 31	⁵ 59.	380'	Grid# 4	<u>9-05</u>	-3	
New Well Replacemen	Recor		4) Propose	ed Use (c	heck) 🖾 N	Vionitor (☐ Env Closed	ironment I-Loon G	al Soil Bori	ng 🗘 Domesti 🗋 De-watering	c C Extraction Testwell	5)		NT
		.,,,,,,,,	Rig Suppl	y 🛭 Stock	D Public	Supply -	- If Pub	lic Suppl	ly, were pla	ns approved? [☐ Yes ☐ No			
6) Drilling I Started		/06	Dia.(in)	iameter (To (ft)				ethod (check Air Rotary - 🗀	C) Mud Rotary			ø
D.1141-0-	<u> </u>			Surta						Air Hammer C				
Completed _	11/ 15		7	0		60				ollow Stem Au	ger			
				-					everse Circo ther	ılation				
From (ft)	To (ft)	Descrip	tion and co	lor of fo	rmation	materia	al				Open Ho			nt Wall
0	2 60	Sand	l, brow	n, đr	Υ•		- .	Grave	el packed in	terval from :	vel Packed □ <u>5</u> ft.to:	<u> 57 </u>	ft. Size	: 3/.8.
2	- 60	Land		ELASII	.*		_		Casing,	Blank Pipe	, and Well S	creen I	Data	
		-						Dia.	New Or	Steel, Plast Perf., Slott	ed, etc		T .	Gage Casing
								(in.)	Vsed New		a, if commercial asing	From +8	To 7	Screen B1k
					<u>•</u>	<u> </u>	_		New_	_PVC_S	creen,			0.0
							_			MFG.		+		
		ļ					-	0) 4		Paul Data				
							-	from	Λ 10	. to 3	e. (<i>from <u>0</u> ft to <u>100</u></i> _ft. #sacks & ma	terial 7	sk/	cmt
·	(Use reverse si	de of Well (· , Owner's copy, 1	If necessary))				ft	. to	_ft. #sacks & ma _ft. #sacks & ma	terial		chip
13) Plugged	☐ Well	plugged	within 48 ho	ours	N/A			Distan	ce to septic	field or other	Performed I	taminatic	on	<u> </u>
Casing left in we From (ft)	To (ft)	From (ft)	ent/Bentonite pl	(ft)	#Sacks &	Material	used		ce to Prope ed: <u>JPM</u>	Ity Line 12	5ft Method (rape		
		<u> </u>			ļ		[steel cased, leav			
				`				☐ Pitle	ace Slab In ess Adapter	Used [Surface Sleeve Alternative Pro			
(4) Type Pur Turbine	np O N/A	. □s	ubmersible 🚨	Cylinder				11) W Static le	ater Lev vel	el N/A	Date:/			_
Other Depth to pump b			ft.					Artesian		gpm gpm				-
5) Water Te							_	Tvpe	CRCI D.	Depth	Type			Depth
Type test 🔲 Po	ımp 🗖 Bailer om with	I Jetted		hr	·e		-							
.6) Water Qi	iality													
Type of water Did you knowing	ly penetrate a s	trata which		irable const	ituents? 🛚	Yes 🛛	No If	yes, Con	linue:					
Check One:	☐ Hazaro	lous materia	ality groundwat al/waste contam	ination end			Othe	r (descri				_		
X I cert	ify that while we landowner	drilling, de was inforn	epening, or o	otherwise o well must	altering th be comple	e abore i	descri lue sec	bed wel in sucl	l, undesira li a manne	ible water or i r as to avoid i	constituents wo njury or pollut	is encou ion.	intered	7
y signing this w	ell report, I ce	rtify that I	drilled or sup	ervised the	drilling of	this well	and th	at each	and all of	the statements	herein are true	and cor	rect.	
ompany & In	olvidual s IV	ame: (type	e or print)	Tierr	a Dri	<u>.11in</u>	g 8	Ent	r.Svc	Inc.	Lic. No.	29	94A	
idress: 530	9 Mace	St.	Ste.A	1 `		Cit	y: E1	Pas	30	S	tate: Texa	3 Zip	799	32
nature:	clu D.	McDu	1/21			76 5	Signatu	ire:						
LR FORM 001\		staller	TDLR	(Original)))	Lan	downe	r (copy)	Apprenti		n Installer (copy	(pprentic)	e Reg. i	Nunther

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						VELL R									
t) OWSER	R				ENŢĮ	**	NAN	ID LC	CATIO	N DATA					*
	e City		Address:	2 Civi			City:				St	ate:	· ·	Zip:	
El Pas	o Texas		Cente	r Pla	za	,		El Paso Texas					1	•	901
2) WELL	COCATION	<u> </u>				· <u>.</u> · · ·			· · ·	·					
Well # or # of wells dril	lled PV5		County:	. Paso	1			cal Add	ress: McCon	ıbs		ıy: E1 Pa	so/7	1993	4
3) Type of \	Vork	**	Lat. 106	0 24.	843	1	Long	31	o 59.	3801	G	rid# 4	9-05	i_3	
New Well Replacemen	☐ Recor		4) Propose Industrial	ed Use (cl Irrigatio	neck)© on □ i	Monitor Injection	□ Envi Closed	roninen -Loop (tal Soil Bo Beothermal	ring 🖸 Dom 🔲 De-water	estic 🖸 1 ring 🔘 1	Extraction Festwell	5)		Νî
6) Drilling I				iameter (f Hol	e	-	7) Di	rilling M	ethod (ch	eck)	}			0
Started _	11/ 09	_/06_	Dia.(in)	From (To (ft)				Air Rotary Air Hammei					
Completed _	11/ 15	<u> </u>	7	0		60	<u> </u>		etted 🛭 F	iollow Stem	Auger				
700	1 (0)			ļ					ther						
From (ft)	To (ft)	_{	ption and co				al .			ompletion med XI G					it Wall
0 2	60	Lan	d, brow d-fill	trash	•		_	Gray	el packed i	nterval from , Blank Pi	:	3_ft. to:	_55_	ft. Size	: 3/8"
		-							New	1	lue, an		~ ,		Gage
				•			_	Dia. (in.)	Or Used	Perf., S	lotted, etc		From	1	Casing Screen
							-		New-	1		.ng.,	1		Blk.
		ļ					-	4	New_	PVC_	Scre	en.,			_001
						· · · · · · · · · · · · · · · · · · ·	-			MFG.					
							-	9) 4	nnnlar.	 Seal Data	ie m	- 0 Gro 100 G	. Franks d		12 comments
-		<u> </u>					-	from		i. to <u>1</u>	ft.#	acks & mat	erial 1	sk/	cmt.
	(Use reverse si	de of Well	Owner's copy, I	f necessary)	}			from	1	t. to	ft.#s	acks & mat	erial		chip
13) Plugged			within 48 ho		N/	Ά		Distar	ice to septi	poured field or oth	er conce	strated cont	aminatio		0_n.
Casing left in we From (ft)	To (st)	From (ft)	ent/Bentonite pl To			& Material	used	Distar Veriti	ice to Propi ed: <u>TPM</u>	erty Line]	25 it 1	Method 'J	.ape		-
		<u> </u>								ompletion					
								□ Pitle	face Stab In ess Adapter	Used		face Sleeve rnative Pro			
14) Type Pui I Turbine I Other	mp N/A	۵s	ubmersible 🗅	Cylinder	_		- 13	II) VV Static le Artesiar	vel		. Date:				
Depth to pump b		et etc.,	ft.	-				12) Pa	ckers:	N/A				-	
(5) Water To Type test 🚨 Po		☐ Jetted	☐ Estimated					Type		Depth		Type			Depth
(ield: g	om with		own after	hrs											
l6) Water Qi ype of water		Dept	h of Strata:		Wa	ıs a chemical	analys	is made	? □ Yes	⊠ No			•		
oid you knowing Theck One:	ly penetrate a st	rata which		rable consti	uents?	XI Yes 🛛	No If y	es, Con	tinue:						
X)	☐ Hazard ify that while d		al/waste contami					(descri		able water	or const	ituents wa	 s encon	ntered	
and th	re landowner	was infort	ned that such s	well must l	e cons	pleted or pi	ugged	in suci	i a manne	r as to avoi	id injury	or polluti	011.		
y signing this wo			e or print)								nts here	Lic. No.:	:		
idress:	NO 34	G.F.			a Dr	<u>illlin</u>	_	Eny Pas		.inc.	State	m		94A	,,
idress: 530		~ .	Ste.A		m A ·	·					Diaco.	Texas		7993	02
	Driller/Pump Ins	c/e)u/s		Da	か <i>合.</i> / ite	U6 S	gnatur	e:	Apprent		····	- A	porentice	Reg. N	unther
THOUSANDER IN	17117D 72 04	1 '	Thib	/Originall		7 ~~	lowner	(name)		Duillau/D.	7	allan /aar			ı

Texas Department of Licensing and Regulation

Water Well Driller/Pump Installer Section

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This form must be completed and filed with the department and owner within 60 days upon completion of the well.

		171110	n addiess.	water, werr		LL R			1622. 11.11	14.11001130.30	meranes			
			Α.	WELL ID					CATIO	DATA .	;			
1) OWNER		•	1 Addesses				City	· ·			State:		Zip:	
Name: The	-			2 Civio		-	•				Texa	ŀ	۲η. 799	וחכ
_ ;	o Texas		1.cent	er Plas	za			EL-P	aso		I LEAG	1.5		
2) WELL I	OCATION	<u> </u>	County:				Dhye	ical Addr			City:	:. · ·	· · · · ·	
Well#or #of wells drill	led PV	6A	1	l Paso			-		McCom	hs	El Pas	so/ 5	7993	34
			1	06 24	0.421				<u> </u>		Grid#			
3) Type of V		nditioning					Lon	ironment	al Soil Bori		e D Extraction	5)		N1
Replacemen			☐ Industri	al 🛭 Irrigatio	on 🗖 Inject	ion 🗆 (Closed	I-Loop G	eothermal {	De-watering	Testwell	-,		
6) Drilling I)ote			ply U Stock Diameter o			If Put			ns approved? I ethod (check	☐ Yes ☐ No			ħ
Started 3	11 / 10	/ 06	Dia,(in)	From (To (ft)		7 O D	riven 🗆 🛽	Air Rotary 🗆	Mud Rotary			7
				Surfa	ce				ored 🔲 /	Air Hammer C	Cable Tool			
Completed _	11 / 10	1 06	7	0		40		- D Je	ited 🛱 H	ollow Stem Au	ger			
completed 2								☐ Re	everse Circu		-			
From (ft)	To (ft)	Descri	otion and	color of for	mation m	ateria	1	8) Bo		ompletion	☐ Open Ho	ile 🗆 S	traiol	nt Wall
0	2			m, dry				บบ	Inder-rea	med 🛛 Grav	vel Packed 🛭	Other	Bac	kfi1
2	40	Land	_fil1	trash.			_	Grave			ft. to: , and Well S			::
		<u> </u>						<u></u>	New	Steel, Plast			ing (ft)	Gage
		 		•			_	Dia.	Or	Perf., Slott	ed, etc			Casing
		1 -					 	(in.)	Used	Screen Mis	a, if commercial	From	То	Screen
							_			None_u	sed			
		 					-							
		 					-		- 				-	
							_	9) A	nnular S	eal Data: i.	e. (from <u>0</u> ft to <u>100</u>	(i #sacks &	noteria.	I 13 cement
		ļ					-	from	<u>0</u> ը	. to <u>40</u>	_ft. #sacks & ma _ft. #sacks & ma	terial <u>B</u> terial	ack	<u>fill</u>
	(Use reverse si	de of Well	Owner's copy	, If necessary)			from	fi	. to	ft. #sacks & ma	terial		
13) Plugged	₩ell	plugged	within 48	hours				Distan	ce to septic	field or other o	Performed I	taminatio	n	0_ft,
Casing left in we From (ft)	To (ft)	Cem From (ft)		placed in wel	l: #Sacks & N	faterial r	used	Distan	ce to Prope ed: JPM	rty Line <u>12</u>	5ft Method	tape		
N/A	10(11)	Back			" Cucho Co Ir	titieria: c	<u> </u>			mplation (f steel cased, lear	en blanks		
							i		ace Slab In	stalled [3 Surface Sleeve	Installe	d	
(4) Type Pu	nn N/A								ss Adapter ater Lev		Alternative Pro	cedure L	Ised C	ap
Turbine	Jet	Qs	Submersible (Cylinder				Static le	vel		Date:/	1		
Other Depth to pump b	owls, cylinder.	iet etc	ft.		_				Flow ckers:	N/A				
15) Water Te								Type	CKCIS.	Depth	Type			Depth
Type lest 🗆 Pi		☐ Jetted	☐ Estimate				-			·				
(ield: g l6) Water Qi	om with	ft. drawd	own after	hr	5.		L						L	
Type of water	N/A	Depi	h of Strata:		Was a c	hemical	analy	sis made	? 🛚 Yes	M No				
Did you knowing Check One:	ly penetrate a s	trata which	contains und	esirable consti :ater – type	ituents? 🕅 🐧	Yes □ Ø	No If Hvdi	yes, Controcations	tinue: : (i.e. gas. o	il, etc.)				
	Hazar	dous materi	al/waste cont	anination enc	ountered		Othe	r (descri)	be)					,
XI I cert	ify that while he landowner	drilling, d was infor	eepening, or med that suc	r otherwise a A well must	iltering the i be complete	above a ed or pl	descri lueve	bed well d in sucl	i, undestro i a manne	ible water or r as to avoid i	constituents we hjury or pollut	is encou ion.	nterec	1
y signing this w	rell report, I ce	rtify that l	drilled or su	pervised the	drilling of th	his well	and t	hat each	and all of	the statements	herein are true	and cor	rect.	
ompany & In	dividual's N	ame: (typ	e or print)	Tierr	a Dri1	lin ₉	g &	Env	.Svc.	Inc.	Lic. No.	299	94A	
ddress: 530	Nace	St.	Ste.A			City		1 Pa			State: Texas	Zip	799	932
			DUC.H		00 101			-	· · · ·					
gnature: Od Livensed	Driller/Pump In	-1) is f log stalky		D	08 106 ate	S	ignati	11.6;	Apprent			Apprentic	e Reg. 1	Yumber
LR FORM 001		. (TD.	LR (Original)		Land	downe	r (copy)		Driller/Pum	p Installer (copy			

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WELT REPORT

This form must be completed and filed with the department and owner within 60 days upon completion of the well.

					177	<u> </u>	<u> 15 P (</u>	<u> </u>						
o omerin					DENTIFI			ND LC	CATIO	N DATA	•	•		•
1) OWNER			1.43	<u>: </u>		•	City	• •			Stute:		1.71	·
Name: The			Address:	2 Civ	ic	- 1	•						Zip:	
El Paso	Texas	<u> </u>	<u> Cent</u>	<u>er Pl</u>	aza			<u>E1</u>	Paso		Texa	<u>.s</u>	<u> </u>	9901
2) WELL L	DCATION	1			,		x 4	·	•••	•	• • • • •	j ·	•••	
Well # or			County:				Phys	sical Add	ress:		City:			
# of wells drille	d PV6B	}	E:	1 Pas	0		13	600	McCom	bs	E1 Pa	so/	7993	34
3) Type of \V	ork		Lat. 10	60 24	0431		Lar	or 21	0 50	380'	Grid# 4			
X New Well		nditioning									tie C Extraction		<u> </u>	- N1
Replacement											g 🔾 Testwell	3,		141
- Replacement	— Dittp:	· · · · · · · · · · · · · · · · · · ·									☐ Yes ☐ No			
6) Drilling Da	ate		Ē)iameter	of Hole					ethod (ched				
Started 1		106	Dia.(in)	From		To (ft)					Mud Rotary			o
	<u> </u>			Sur							Cable Tool			
			7		,	60		1_						
Completed _1	1/ 15	_/06_		<u>-</u> -	<u>'</u>	00				ollow Stem A	uger			
								_	everse Circi	alution				
55 - 50 S	707		·		<u>l</u>	 ,								
From (ft)	To (ft)	Descrip	otion and c	olor of fo	rmation	materia	il				Open Ho			at Wall
	2_	Sand	hrow	m, dr	·y		_	Cres	Jnder-rea Macabadia	med Ku Gra	vel Packed	Uther	r	
2_	60	Land	I-fill	trash	l•			Gravi	Cocing	Rionic Din	6 ft. to: e, and Well S	<u> </u>	Dote	=3/_8
							_		T			neen.	Data	
			<u> </u>				_	D:-	New Or	Steel, Pla		Sett	ting (ft)	Gage
				•			_	Dia. (in.)	Used	Perf., Slot Screen M	fg., if commercial	From	To	Casing Screen
							_	4	ŀ	ì		-	8	J
							_	1	New-		lasing,_		58	B1k
								4	New	MFG.	creen.	+ 9	20	
							_			<u></u>		+		
							_					-	 -	•
							_	9) A	nnular S	eal Data:	.e. (from <u>0</u> ft to <u>100</u>)	O Penake		1 12
							_	from	n O	. to 3	_ft. #sacks & ma	lerial 1	sk/	cmt.
. 1		1		•				from	<u></u>	. to <u>6</u> _	_ft. #sacks & mai	leriaI _2	sk/	Bent
J)	Use reverse si	de of Well (Owner's copy,	If necessar	y)			from	ft	. lo	_ft. #sacks & mal	erial		chip
13) Plugged	□ Well	nlugged	within 48 h	Ottes	N/A			Metho	d Used[Soured Sald or other	Performed E concentrated cont	y	err	a
Casing left in well:		Ceme	nt/Bentonite p		il:			Distan	ce to Prope	rty Line 17	5ft Method	la be		<u> </u>
From (ft)	To (ft)	From (ft)	T	o (ft)	#Sacks &	Material u	ised		d: <u>TPM</u>					
		L						10) 50	rfora Co	mulation /	If steel cased, leav	م وسسمی امارساط م	·	~
							l		ace Slab Ins		M Surface Sleeve			
		J	·					O Pitle	ss Adapter	Used	Alternative Pro			
(4) Type Pum	P N/A							11) W	ater Leve	N/A				
Turbine	O Jei	Q Sı	ubmersible 🛭	Cylinder			- 1	Static le	vel	ft.	Date:/_			-
I Other Depth to pump bow	ula outlinder	int ata	ft.				- 1	Artesian		gpm	t .			
		jet etc.,					 -		ckers:]		T			70
5) Water Tesi	t N/A	. .					F	Тура		Depth	Type		T	Depth
ype test 🔲 Pum	-						- F		-				 	
	n with	ft. drawdo	wn after	<u>h</u>	rs.		!						<u></u>	
6) Water Qua	•	Donah	of Strate:		13700.0	nhaminal		ete madr	? 🗆 Yes	T Ma			,	
ype of water id you knowingly	N/A nenetrate a st			irable cons						₩ 140				
heck One:			lity groundwa							l, etc.)				
			l/waste contan					r (descril						
											constituents wa		intered	
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Texas Department of Licensing and Regulation

Water Well Driller/Pump Installer Section
P.O. Box 12157 Austin, Texas 78711 (512)463-7850 FAX (512)463-8616

Toll free (800)803-9202

This form must be completed and filed with the department and owner within 60 days

Em	ail address: <u>water.well@license.state.t</u> WELL F	<u>x.us</u> Web address: <u>www.license.s</u> REPORT	tate.tx.us upon co	empletion of the wel
	A. WELL IDENTIFICATION	ON AND LOCATION DATA		
1) OWNER	- Advance		·	
Name: The City of	Addiess: 2 Civic	City:	Stute:	Zip:
El Paso Texas	Center Plaza	E1 Paso	Texas	79901
2) WELL LOCATION				
\Vell # or	County:	Physical Address:	City:	
#of wells drilled PV7	E1 Paso	13600 McCombs	El Paso	/79934
3) Tuno of Mark	T-4 1000 04 040			
3) Type of Work ☑ New Well ☐ Reconditioning	Lat. 106° 24.843'	Long, 31 59,380'	Grid# 49-	<u>05-3</u>
Replacement Deepening	4) Proposed Use (check) Monitor Industrial Infigation Injection	Closed I non Goothamps Do water	tie U Extraction 5)	N
	Rig Supply Stock Public Supply	- If Public Supply, were plans approved?	D Yes D No	
6) Drilling Date	Diameter of Hole	[7] Drilling Method (chec		
Started <u>11/ 13/06</u>	Dia.(in) From (ft) To (ft)		· .	٥
	Surface	☐ Bored ☐ Air Hammer [
Completed 11/ 15 /06	7 0 60		٠.	
Completed 111 23 706		☐ Jetted ☑ Hollow Stem At	iger	
		Reverse Circulation		
From (ft) To (ft) Descri	ption and color of formation materia		D Open Hole I	7 Straight Well
		☐ Under-reamed XI Gra	wel Packed D Ot	her
2 51 Tan	d, brown, dry. d-fill trash.	Gravel packed interval from:	4 ft. to: 5	1_ft. Size: 3/6
	d, brown, dry.	Casing, Blank Pip	e, and Well Scree	n Data
	ar baowiir ury.	New Steel, Plas	stic, etc.	Setting (ft) Gage
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				rom To Screen
		- A_New_PVC_C	asing.,	+8 6 B1k
			creen, 6	1 21 0.0
		- MFG.		
		- 9) Annular Seal Data: i.	A (C 0 C+ 100 C V.	
		from 0 ft. to 1	ft. #sacks & material	1sk/cmt.
		from 0 ft. to 1 from 1 ft. to 4	_ft. #sacks & material	2sk/Bent
	Owner's copy, If necessary)	fromfi. to Method Used_poured	_ft. #sacks & material	<u>chip</u>
	within 48 hours - N/A	Distance to septic field or other of	concentrated contamin	ation 0 ft.
Casing left in well: Cem From (ft) To (ft) From (ft)	ent/Bentonite placed in well:	Distance to Property Line 12	5ft Method Tap	e
From (ft) To (ft) From (ft)	To (ft) # Sacks & Material a	Ised Verified: JPM		
		— 10) Surface Completion (f steel cased, leave blue	nk)
		— 🔲 Surface Slab Installed - 5	🖺 Surface Sleeve Insta	alled
4) Type Pump N/A		D Pitless Adapter Used C	Alternative Procedur	e Used
	ubmersible 🛘 Cylinder	11) Wafer Level N/A Static level ft. E	Jute: /	1
Other		Artesian Flow gpm	7.000	
epth to pump bowls, cylinder, jet etc.,	ft,	12) Packers: N/A		
5) Water Test N/A		Type Depth	Туре	Depth
ype test D Pump D Bailer D Jetted				
ield: gom with ft, drawdo	own after hrs.			
6) Water Quality pe of waterN/ADépti	of Strates Was a shareful?	and the second of the second o		
id you knowingly penetrate a strata which	n of Strata: Was a chemical contains undesirable constituents? A Yes O	anarysis made: Li res Lig 180		
heck One: 🔲 Naturally poor-qua	dity groundwater – type	Hydrocarbons (i.e. gas, oil, etc.)	•	
	I/waste contamination encountered	Other (describe)		
	epening, or otherwise altering the above d ned that such well must be completed or pli	escribed well, undesirable water or c	onstituents was enci	ownered
signing this well report, I certify that I	drilled or supervised the drilling of this well a	iggen in such a manner as 10 ayold ii and that each and all of the statements	yury or pollution, herein are true and a	orrent.
mpany & Individual's Name: (type	or print)	and the statements	Lic. No.:	011601
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2303 Mace 501	, , ,	J. 1400	Texas 2	755613.
ature: July PMCDuff		gnature:		1
. Licensed Driller/Pump Installer ()	TDLR (Colors II)	Apprentice :	- · · Apprent	tice Reg. Number
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PART III SITE DEVELOPMENT PLAN ATTACHMENT 14 – LGMP

APPENDIX 14-G

LANDFILL GAS MIGRATION CONTROL SYSTEM (GMCS) ALONG WESTERN PERIMETER

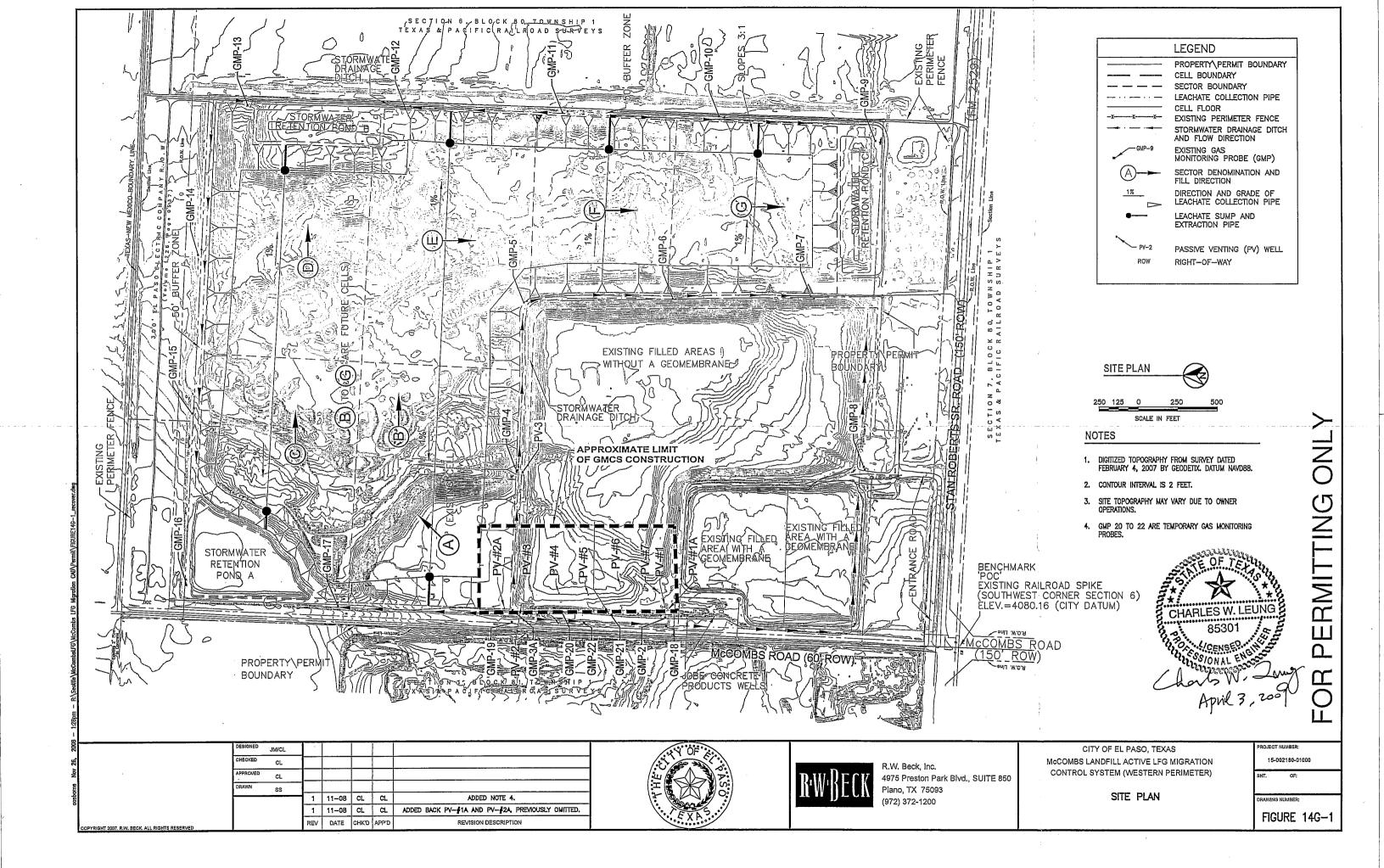
(Added April 3, 2009)

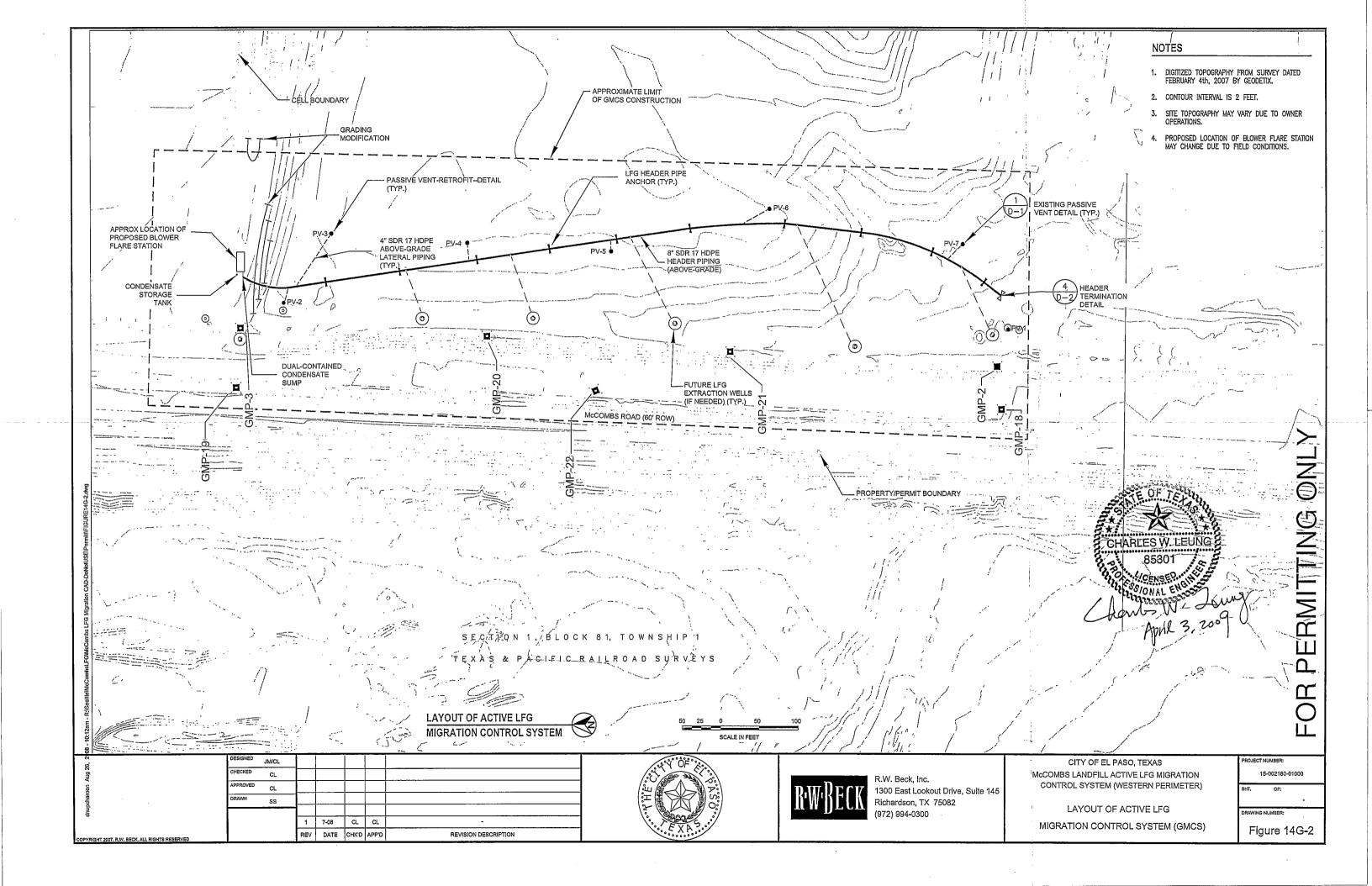
PART III SITE DEVELOPMENT PLAN ATTACHMENT 14 – LGMP

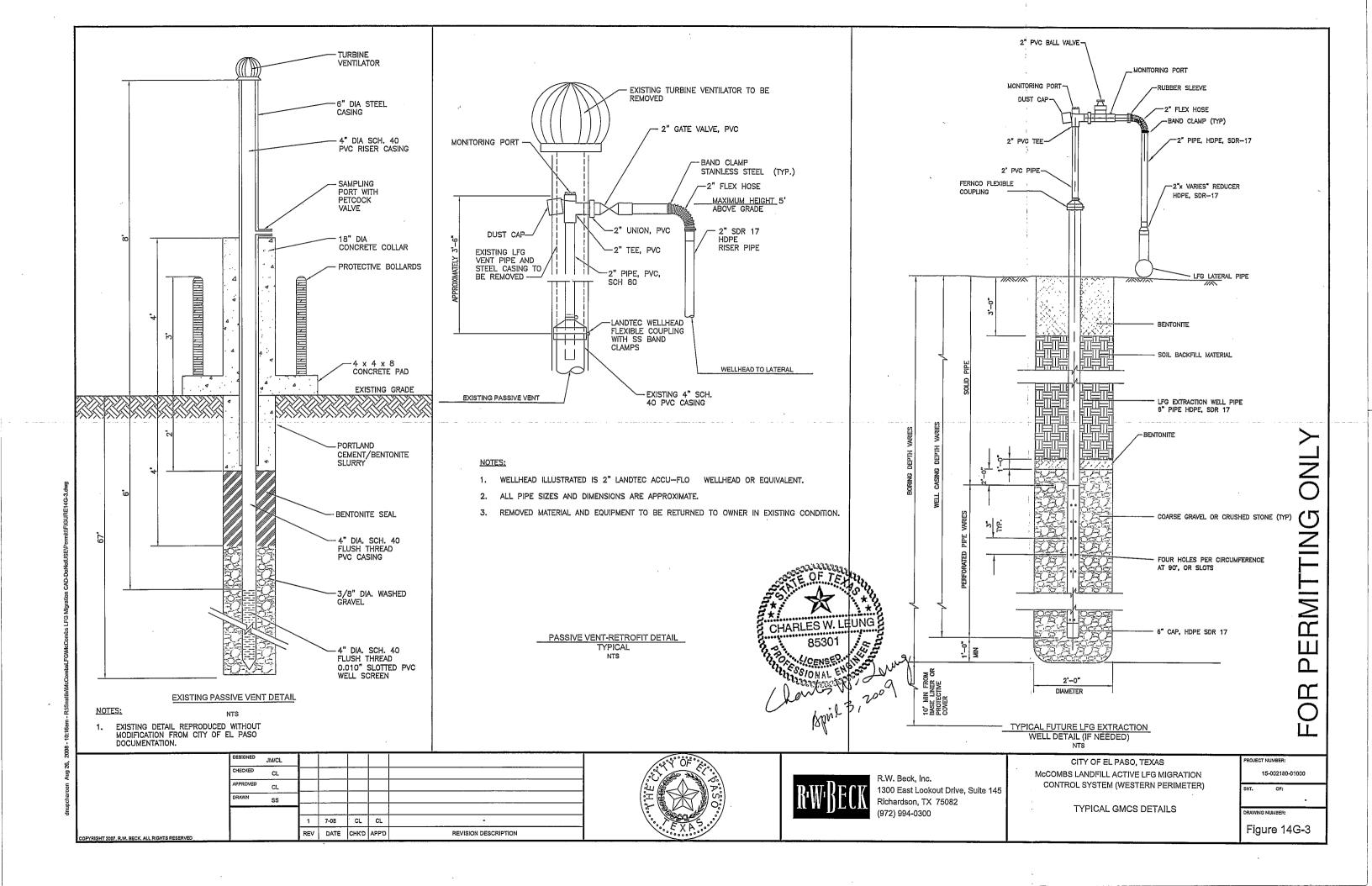
APPENDIX 14-G

LANDFILL GAS MIGRATION CONTROL SYSTEM (GMCS) ALONG WESTERN PERIMETER

(Added April 3, 2009)







PART III SITE DEVELOPMENT PLAN ATTACHMENT 14 – Landfill Gas Management Plan

REVISED/REPLACEMENT PAGES (Redline/Strikeout Format)

(CONHINUED)

STITE IDEVIDEOPNIENT PLAN PAIRT THE ATMACHMIENT 14 LANDREL GASMANA GEMEENT PLAN

McCombs Landfill El Paso County, Texas TCEO MSW Permit No. 729A

Approved December 14, 2001 Revision 1 Approved November 13, 2003 Revision 2 April 3, 2009

Prepared for

City of El Paso Environmental Services

7969 San Paulo Drive

El Paso, Texas 79907

Prepared by:

R. W. Beck

4975 Preston Park Blvd., Suite 850

Plano, Texas 75093

Project No.:15-00297-01.000

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7 BASIS OF PROBE AND VENT PLACEMENT

In June 2000, two passive venting wells (PV-1 and PV-2) were installed in order to intercept and vent methane gas prior to reaching GMP-2 and GMP-3. One (1) venting well was installed approximately fifty (50) feet east of GMP-2, with the other venting well installed approximately fifty (50) feet south and thirty (30) feet east of GMP-3. Both venting wells were installed to a depth approximately sixty (60) feet bgs in order to capture methane gas at depths where the majority of the elevated methane gas levels were detected and may be generated.

In 2001, one vertical passive venting well (PV-3) was installed to a depth of 55-feet below grade. The venting well was located approximately 10 feet south of GMP-4. Construction details for the Passive Venting Wells are included in Appendix D-1. The locations of the passive venting wells are shown in Appendix A-2.

Five (5) additional passive venting wells (PV-3 to PV-7) were installed in 2006 to provide additional gas venting in the area between GMP 2 and GMP 3; PV-3 was a replacement vent of the one installed in 2001. GMP 18 and GMP 19 were installed in 2004 to eventually replace GMP 2, and GMP 3, respectively. GMP 2 and GMP 3 will be decommissioned, plugged and abandoned after their gas readings have returned to compliance due to the installation and operation of the proposed active Gas Migration Control System (GMCS) along a portion of the western perimeter as part of the gas migration remediation plan. The current locations of GMPs 2 and 3 are too close to the waste limits, and the locations of GMPs 18 and 19 are more suitable for gas monitoring at these two locations.

Temporary GMPs 20, 21 and 22 were installed in 2006 to provide additional information on gas migration. These probes will also be decommissioned, plugged and abandoned after the gas readings of the impacted probes in the affected area have returned to compliance. The City has also decommissioned, plugged and abandoned GMPs 4, 5 and 6 based on previous TCEQ approval.

The locations of the GMPs and passive venting wells are shown in Figure 14G-1, and the approximately coordinates and elevations are shown in Appendix A-3.

The permanent Site Methane Monitoring Network consists of fourteen (14) GMPs spaced approximately 1,000 feet apart. The GMPs were installed along the permitted area and property boundary. A review of on-site geological/soil data revealed little evidence of any laterally extensive stratographic units which could significantly influence migration of any gases produced within the landfill cells (AGRA, 1994). The locations of the GMPs are shown in Appendix A-2. Except for GMP-7 (10 feet deep), the GMPs depths are 55 feet. The depth of each GMP was based on the following information:

Closed Cell Area:

According to information provided by the City, the southeastern quadrant of the landfill was used for disposal of municipal solid waste in the early 1960's. Information available suggests that little excavating was performed; waste was placed on the surface of the ground and covered (Borrego, 1994). AGRA Earth and Environmental Group estimated that the depth of waste in this area extends less than 5 feet below the surrounding land surface. The top of this cell is approximately 15 feet above grade (AGRA, 1994). The cell is covered with silty sand.

Phase II Area:

Excavations southwest of the potential area extended to a depth of 65 feet below the surface (Borrego, 2000).

8 GAS MONITORING PROBE INSTALLATION (Continued)

Gas Monitoring Probes 18 to 22 (AMEC, 2004 - 2006)

The gas monitoring probes were installed by a dicensed monitor well driller (Mr. John McDuffee Bicense No. 2994W) employing a CME //5 truck mounted that Frigue dripped with 10-inch @ D. hollowstem augers (All drilling and probe operations were jet formed under the direction of an AMEC Texas registered professional geologist. During the placement of the probes the soil encountered was continuously examined visually classified and logged. The boring and well logs of the GMPs 18 to 22 are presented in Appendix Fr Locations of GMPs 18 to 22 are shown in Appendix G.

GMP 18 and GMP 19 were installed in 2004 to eventually replace GMP 2; and GMP 3A, respectively. GMP 2 and GMP 3A will be decommissioned plugged and abandoned after their gas readings have returned to compliance due to the installation and operation of the proposed active Gas Migration Control System: (GMCS) along a portion of the western perimeter as part of the gas inigration remediation plan. The current locations of GMPs 2 and 3A are too close to the waste limits, and the locations of GMPs 18 and 19 are more suitable for gas monitoring at these two locations. The original GMP 3 was damaged and was replaced by GMP 3A in 2003.

Temporary GMPs 20, 21 and 22 were installed in 2006 to provide additional information on gas migration. These probes will also be decommissioned, plugged and abandoned after the gas readings of the impacted probes in the affected area have returned to compliance. The City has also decommissioned, plugged and abandoned GMPs 4, 5 and 6 based on previous TCEQ approval.

18 GAS MIGRATION CONTROL SYSTEM ALONG WESTERN PERIMETER

Existing gas monitoring probes (GMPs) 2.3, 20, and 21 along the western perimeter of the McCombs Landfill have been experiencing periodic elevated methane readings above the regulatory limit of 5 percent (%) for some time: Gertain investigations and field work had been performed by consulting firms in the past on LFG; migration at the landfill, and the landfill is currently under enforcement actions by TGEO to mitigate the affected GMPs due to elevated methane readings.

Additional passive vents (PV-3 to PV-7) were installed along the western waste limit of the Landful in 2006 by AMEC (a local consulting firm) as part of the on-going remediation efforts. The boring and well completion logs and state well reports are provided in Appendix F. The locations of PV-3 to PV-7 are presented in Figure 14G-14 However, the passive vents were not effective in controlling gas migration toward the affected GMPs. As a result, the City decided to install an active gas migration control system (GMCS) as part of the site gas remediation plan.

The proposed GMCS is an active extraction system to control LFG migration in the affected area. The system is a partial active system because it will be installed only along a distance of approximately 1,000 to 1,500 feet over the western portion of McCombs Landfill (Phases I = III) to remediate LFG migration in the affected area. Existing passive vents PV-2 to PV-7 will be converted into active gas extraction wells as part of the GMCS. In addition to the 6 converted extraction wells, the GMCS will consist of LFG header and lateral pipes, a condensate sump and pump system, a blower/flare (b/f) station, a condensate storage tank and an air compressor system to power the condensate pump system. Future new gas extraction wells may be installed if the gas readings of the affected GMPs are not under the compliance level after 6 months of operating the GMCS with the converted passive vents. See Figures 14G-1 and 14G-2 for the approximate location and layout of the proposed GMCS. Typical details of the passive vents conversion and potential new gas extraction wells are presented in Figure 14G-3.

The Landfill site is currently under the annual air emissions threshold of the Federal New Source Performance Standards (NSPS). As a result, there is no present requirement for the City to install a LEG collection and control system (GCCS) covering the entire landfill under the NSPS rules, unless there are changes in the anticipated waste acceptance rates and/or site specific non-methane organic compounds (NMOC) concentrations in the future that may increase air emissions.

APPENDIX A-S

HORIZONTAL LOCATIONS AND ELEVATIONS TABLE FOR GAS MONITORING PROBES AND PASSIVE VENTING WELLS

Reference Point	North	South	Elevation
GMP-1	10675.08	10110.84	4086.41
GMP-2	11883.99	10084.55	4088.11
GMP-3A (replaced original GMP-3))	12885.06	10080.40	4096.68
GMR-4 (decommissioned)			
GMR=5 (decommissioned)			
GMR=6 (decommissioned)			
GMP-7	11051.54	12140.06	4072.61
GMP-8	10665.08	11084.89	4072.38
GMP-9	10680.16	13140.49	4078.55
GMP-10	11681.36	13252.38	4084.32
GMP-11	12680.13	13235.89	4087.33
GMP-12	13679.19	13217.35	4082.85
GMP-13	14680.49	13199.921	4082.21
GMP-14	14964.03	12243.49	4075.69
GMP-15	14961.44	12244.89	4067.69
GMP-16	14953.59	10166.20	4048.13
GMP-17	13973.30	10070.10	4056.37
GMP-18**	10738875.87	413522.86	
GMP-19**	10739860.13	413550.26	
GMP-20**	10739538.43	413615.12	
GMP-21**	10739225.81	413595.36	·
GMP-22**	10739398.67	413545.64	
PV-1	11870.84	10134.05	4092.70
PV-2	12803.58	10116.34	4101.28
PV-3	12835.90	10960.34	4081.81

RR Spike (Benchmark)*	10000.00	10000.00	4080.16
FND CM @ Back Bldg. (Benchmark)	10609.25	11047.33	4072.11
	10739557407	41873235	
PV2575	7073937287	413721745	·
RIZ 612	1073916826	413775774	
Pie Ali	10739168126	418775774	

***Approximately locations only, coordinates and elevations not surveyed.

^{*} The RR Spike Benchmark was designated as the reference point for the survey. This benchmark is located at the common corner of Section 1 and Section 12, Block 81, Township 1, and Sections 6 and 7, Block 80 Township 1, Texas and Pacific Railway Surveys.

BARTINI STITE DEVICEOPMIENT PEAN ATTACHMENT 14-LEMP

APPENIDEX 144II

ADDITIONAL GASIMONITIORING PROBES (GMPS 18 TO 22) AND PASSIME MENTS BORING LOGS AND WELL REPORTS

(Added April 3, 2009)

PAREFILI STITE DEVICTOPMENTEREAN ATERACITATIONE 14-LOME

AIPPENDIX 14+G

LANDRILL GAS MIGRATION GONTROL SYSTEM (GMGS) ALONG WILSTERN PERMITTER

(Added April 3, 2009)